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THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

A REPOSITORY OF
SCIENCE, LITERATURE AND GENERAL INTELLIGENCE.

DEVOTED TO

ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE MANKIND, SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

Embellished with Numerous Portraits and other Engravings.

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JANUARY TO JUNE, 1887.

H. S. DRAYTON, A.M., M.D., EDITOR.

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“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionnera jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”—JOHN BELL, M. D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopædia Britannica*, 8th Edition.

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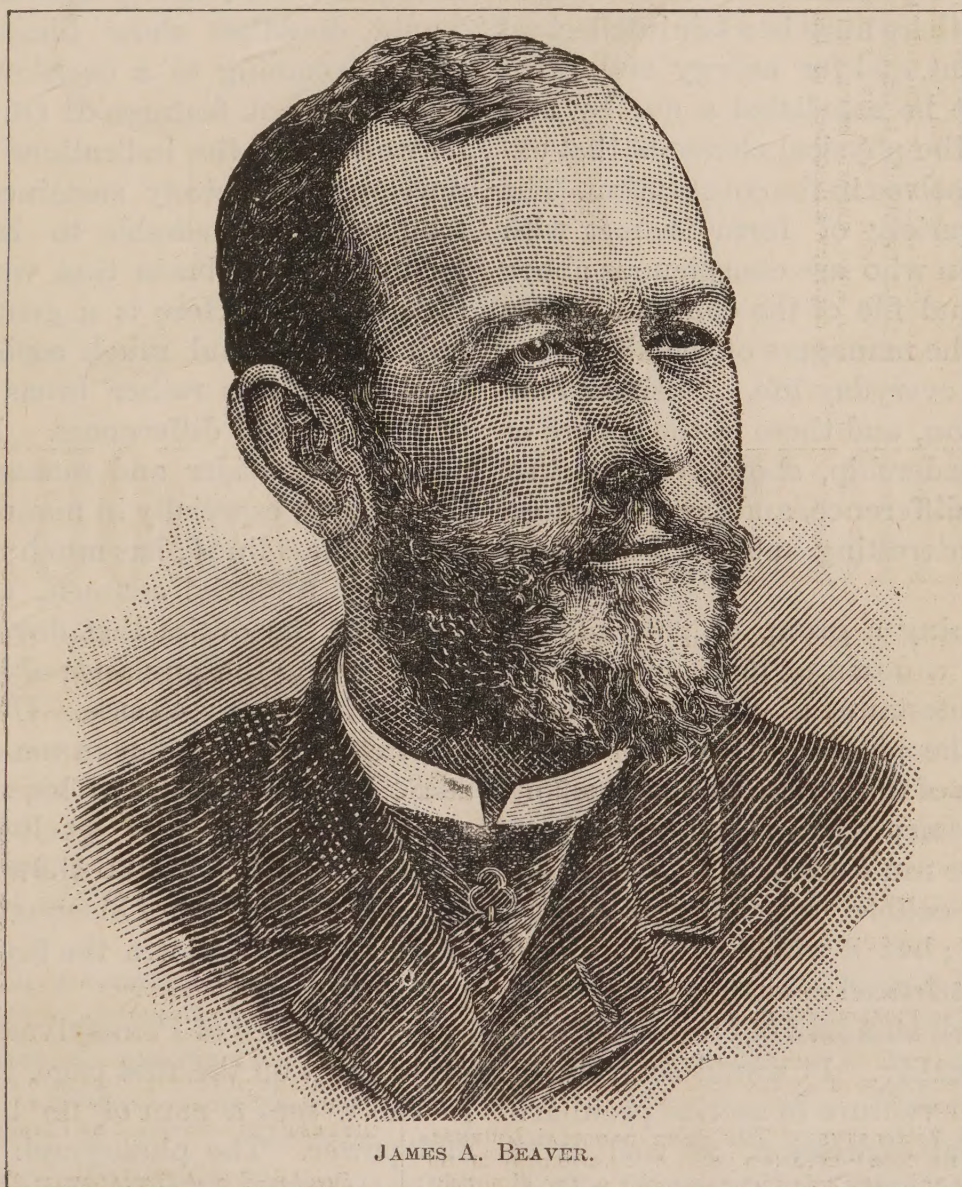
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JAMES A. BEAVER.

SEVEN NEW GOVERNORS.

MASSACHUSETTS—PENNSYLVANIA—SOUTH CAROLINA—CALIFORNIA—
NEW JERSEY—TENNESSEE—DELAWARE.

THE attempt to predicate talent and special form must indicate departure capacity of a special form of head, from high excellence, appears to us un- and to assert that deviation from that warranted by the practical observation

of men. Form, we insist, has its relation to intellect and character, and with variations of form we associate variety of talent and disposition. Because one man manifests more energy and efficiency in a given direction than another, it can not be assumed that he is superior mentally to that other, since it may be found that in certain directions the second may manifest brilliant capabilities and there throw the first completely in the shade.

It is certain, however, that for good judgment, discernment of the useful and expedient, there must be a fair intellectual development, and for energy and force there must be associated a quality and temper of the physical elements that express themselves in the constitution. The greatest variety of form is met with among men who are conspicuous above the rank and file of the community for ability as the managers of the affairs belonging to everyday life. Business men of distinction, and those in the sphere of political leadership, show very marked points of difference, and are therefore the more interesting subjects for mental analysis.

In scanning a group of portraits representing a dozen or more of the successful contestants, at the recent elections for the place of Governor in as many states of the Union, one is struck by their difference in organization. These as a rule we must admit to be gentlemen of superior calibre, especially on the side of intellect ; but it would certainly puzzle the experienced critic to adjust them all to a given standard of brain-form and physical quality. It would scarcely be a successful venture to ascribe peculiarities of facial expression, as well as of thought and action, to this one or that, because he represents Massachusetts, or Delaware, or California, or Tennessee, in the office of the chief executive. A civil magistrate, who represents a party in a given section of the country, does not to-day, therefore, represent the peculiar type of mental development that some economists may attribute to his

community as a whole. In the older states we sometimes see such typical representation, but in the new states, where the masses are agriculturists and very largely made up of immigrants, it is not to be expected.

If the reader will glance from face to face of the series of newly made governors that accompany these remarks he will be impressed by the marked contrasts in their physiognomy, and if challenged to point out the "smartest" man of them all, merely from their faces, would doubtless show himself rather slow in coming to a decision. In the calm, well-cut features of Oliver Ames he would note the indications of a well developed and nicely sustained body, a temperament favorable to balance of faculty, and a brain that works with little friction. Here is a gentleman of refined tastes and much aspiration, an intellect that is rather broad in view and tolerant of differences. He shows ability to consider and manage important affairs, especially in manufacturing and business lines ; has much more than ordinary financial acumen, and could discharge the duties that devolve upon those having the guidance of important monied interests with ease. He is graceful, easy and courteous in manner ; can adapt himself readily to his company, and command their good-will. In political life he would show no little strength on account of his suave, mellow bearing, and thus win the favor of his party associates.

In the choice of Pennsylvania, whom we have set on the first page, the reader probably sees a man of no little force and power. The photograph certainly indicates that and the engraving suggests certain associations of iron and coal in the development of such a physique and brain. He possesses a fine intellect, adapting him to pursuits that employ it as the chief instrumentality. Bred to the law he would naturally rise in the esteem of the community, for there are indications of watchfulness, of a sensi-

tive regard for honor and reputation, of reverence for the pure and noble, and a very quick appreciation of character. He should be remarkable for the clearness of his intuitions and very tenacious in regard to opinion. Had he devoted himself to literature he probably would have become a writer whose grasp of the essential nature and logical bearings of the subject claiming the attention of his pen would have made him notable.

that must be exhibited sharply in his conduct. There are spirit and aspiration that have a backing of courage and persistence. He has certain convictions with respect to honor and reputation, and would not bear an affront, or submit to depreciation. His social nature appears to be very influential, giving a deep interest in the relations of home and friendship, and the disposition to make much of birth and family



OLIVER AMES.

His style as a speaker should be clear, definite and incisive ; brief yet not wanting in finish, a quality that in writing would be more pronounced. The height of the head in front indicates more kindness and humanity than are found in men as they average, and these elements exert a very marked effect in tempering and softening the vigor and force that belong to the basic elements of his character.

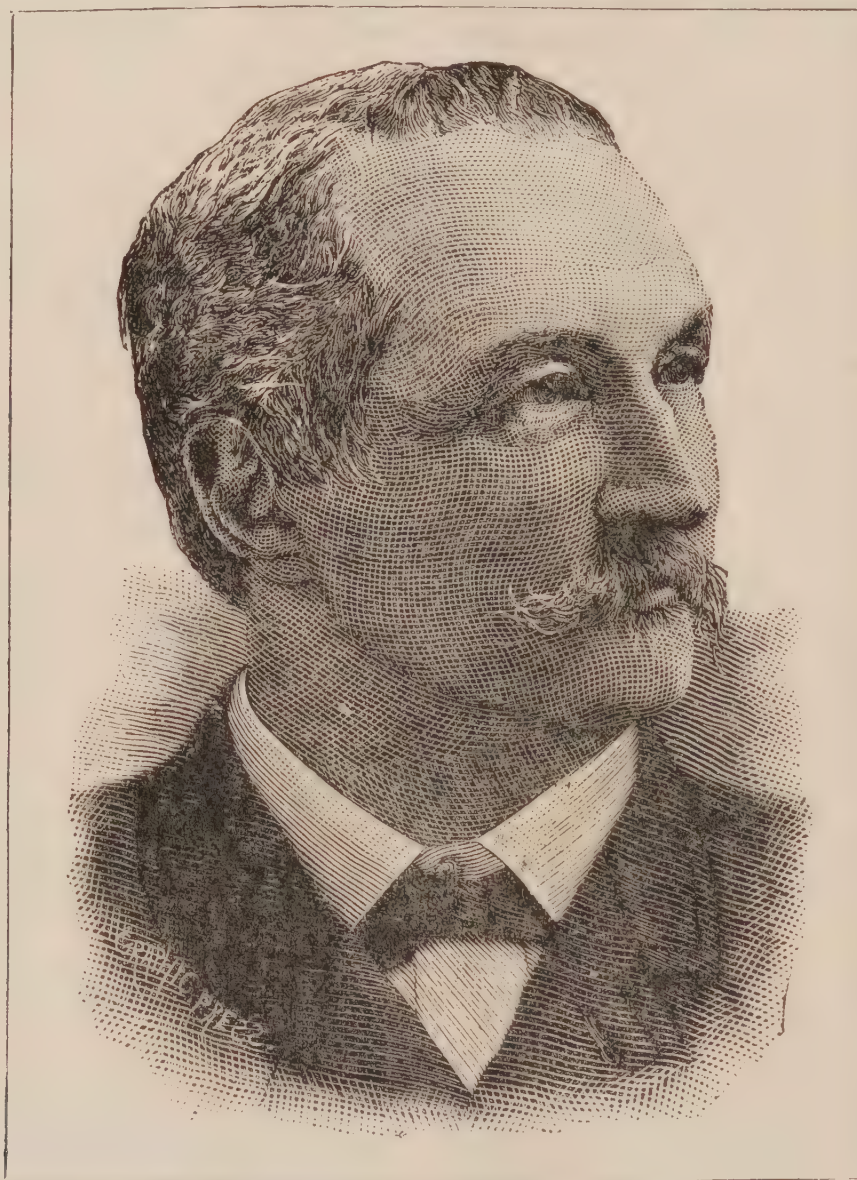
Looking next at the Governor of South Carolina we find evidences of an active temperament with elements of strength

eminence. The perceptive organs are fine, and there is power to reason, to comprehend facts not only in the concrete but in the abstract. Such a forehead means a superior grasp of memory, and ability to combine principles and organize systems and enterprises. We think Gov. Richardson to be eminently adapted to scientific pursuits especially that of the geologist or civil engineer.

Sweeping now across the broad expanse of our country let us consider for a moment the new Governor of the Golden State, Mr. Swift. He impresses

us at first sight with an idea of refinement, culture and sensitivity that scarcely comports with the bold and rugged spirit of Californian life. There is, however, much versatility and progressiveness behind those calm and thoughtful eyes, and the mouth has an expression of emphasis and decision that is unmistakable. The fulness of the temples shows econ-

Returning to the Atlantic sea-board let us glance at the man who will administer the civil affairs of New Jersey for the next two years. Mr. Green, as shown by the engraving, has a strong face. The features are large, and indicate a temperament most favorable to physical robustness and long life. That heavy jaw and large neck show a splen-



JOHN P. RICHARDSON.

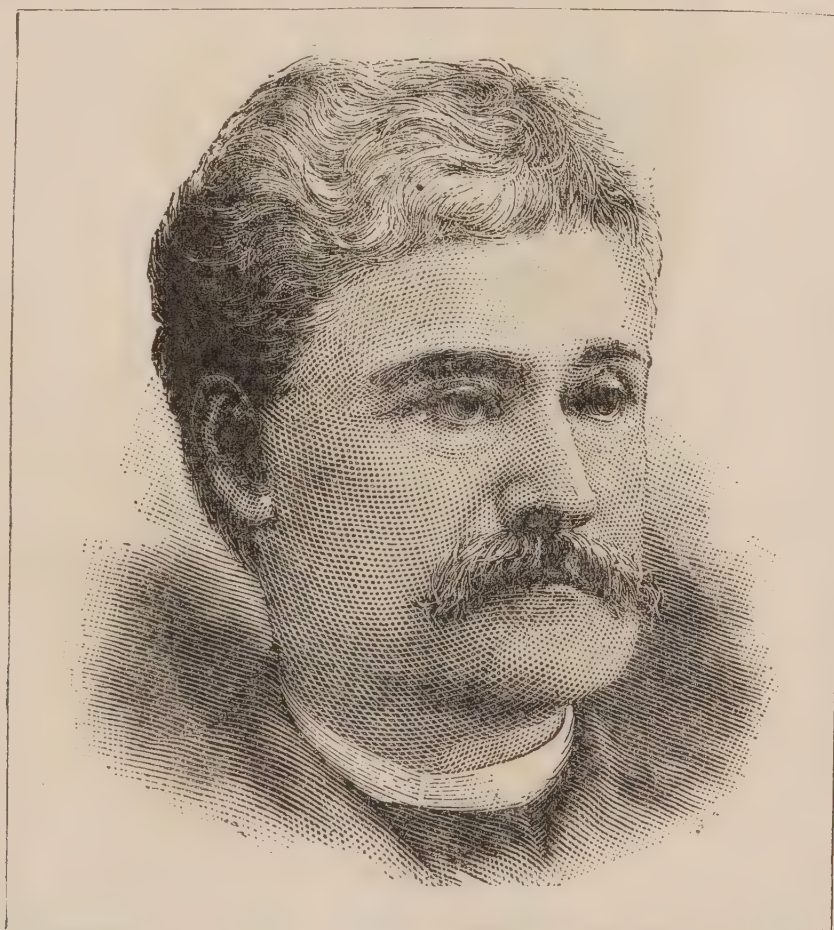
omy, planning and financial talent, taste and inventiveness. He should be a man of ready resources, quick to comprehend the nature of a situation, whether of advantage or disadvantage, and as quick to devise a method for making the best of it. In the business world, especially a financial department, or in such a profession as the law, Mr. Swift would have made his mark.

did nutritive apparatus—that all parts of the body and brain are supplied with abundance of blood. His mental organs should operate with energy, and their expression be marked with force and directness. He is eminently a man of practical intellect; clear and positive in judgment, a shrewd, careful, economical adviser, and by no means solicitous about mere formalities in conduct and

speech. We should not expect to hear of his dealing in the arts of blandishment, or sophistry, or trying to gain a point by craft and cunning. He believes in a direct, unceremonious showing of the facts and letting them have their weight in the mind of judge and jury. He looks at facts much as they occur to him, and should show method and sagacity in their application. Language appears to be well developed, giving him readiness in expressing his views from a stock of information on general matters that ought to be large.

The Governor of Tennessee is a bright,

habit. He must restrain the drift of his disposition and cultivate moderation or expect to break down ere his powers have reached their zenith. The height of his crown shows unusual will and determination, while in the general expression we note intimation of boldness and ambition that on occasion would prompt him to take serious risks, and to secure an object by a dashing stroke. He has, we opine, a brilliant, dashing way, not unlike that of Custer or the late hero of the Soudan campaign—which is calculated to win applause and popularity.



JOHN F. SWIFT.

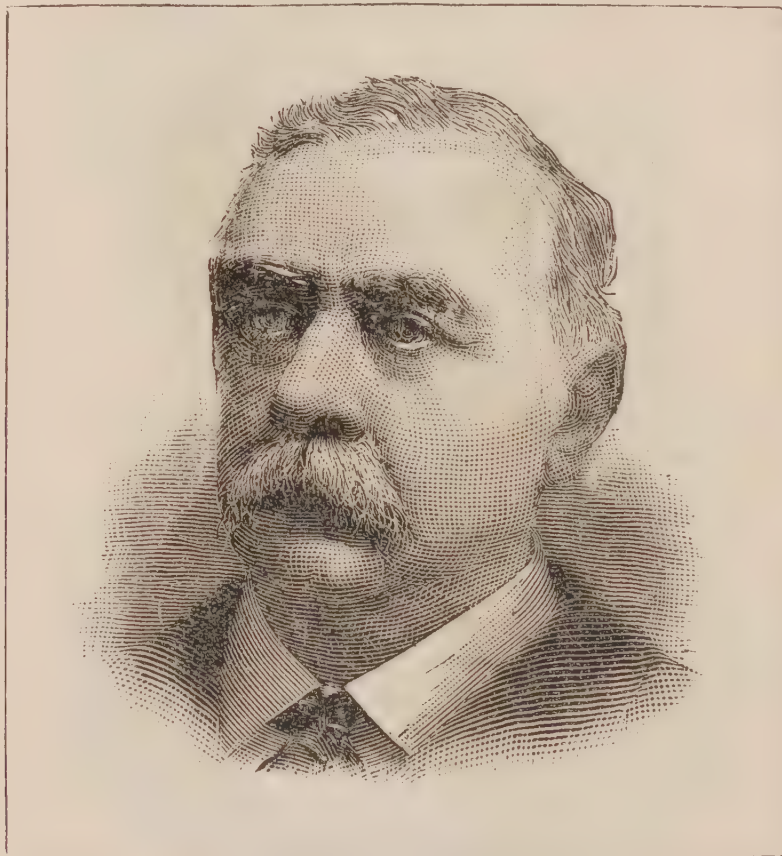
youthful man, with an organization in which the mental temperament shows a tendency toward dominance. He is very active and excitable; surroundings that quicken thought and feeling have a fascination for him, while dullness and monotony are intolerable. His nervous activity draws heavily on the vital organs, and imposes the necessity of vigilance with respect to daily

The man selected by the people of Delaware is a good type of the Southerner; the portrait shows originality, independence and eccentricity, a revival of the old planter class. Mr. Biggs is no admirer of the merely decorative, no worshipper of the conventional, and probably despises the modern "dude" most heartily; yet can appreciate what is substantially elegant and tasteful, or

that glimpse of fullness on the right side of his head in the region of Ideality is misleading. We should take him to be a man who can be content with a moderate range of activity, and not anxious to win a name for broad and general power. He is specific in his leanings, can fix attention to one line of thought, and carry out one purpose without feeling disturbed by side issues and suggestions that he could do something else much better. He ought with such a head to show great tenacity of purpose, deliberation, and patience. He has

Some brief notes of biography must conclude this rapid sketch of the seven men who have won high office in the late election contests of as many states.

OLIVER AMES is the son of the late Oakes Ames, who it will be remembered was a successful manufacturer of iron implements, and figured rather conspicuously a few years ago in a certain Congressional sensation when several distinguished representatives from different parts of the Union were suspected of accepting bribes for their interest in behalf of a financial enterprise. He was



ROBERT S. GREEN.

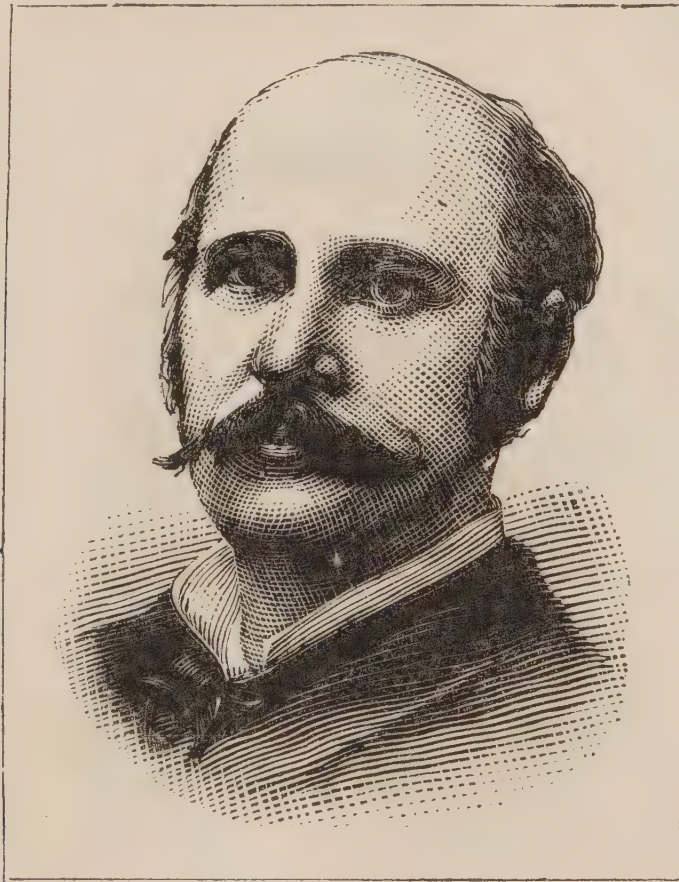
force, but little of the excitability and restlessness that characterizes the gentleman of Tennessee. He has, we think, from the apparent development of the side-head, special understanding and management of the mechanical agents of nature, and had he studied mechanics, or taken up some branch of manufacturing industry he would probably have shown much ability as an inventor. His place is with what relates to the practical, substantial and definite, and includes interests of a social nature.

born February 14, 1831, at Easton, Mass., and graduated at Brown University. Trained to a business life by his father, with his brother he succeeded to the management of the large Ames Shovel Works, at North Easton. His political career began when, in 1880, he was elected to the State Senate. He was re-elected the following year, and in 1882, when General Butler captured the governorship, Mr. Ames was elected Lieutenant Governor by the Republicans. Every year since then, until this,

he has been renominated and re-elected to the same position. His opponent in the recent contest, was J. F. Andrew, son of the well known "war-Governor" of Massachusetts.

JAMES A. BEAVER, now Governor of Pennsylvania, was born at Millerstown, Perry Co., in that State, on October 21, 1837. He is of Huguenot stock and was educated at Jefferson College, Canonsburg, graduating in 1856, when he at once began the study of law. While preparing himself for the bar, he joined

ed Lieutenant-colonel. When the call for 600,000 men came he was made Colonel of the Centre County regiment, the 148th, and from that time his military career really dates. He was severely wounded at Chancellorsville; but being removed to Harrisburg took command of Camp Curtin during the Gettysburg crisis. He participated in the battles from Gettysburg to the Wilderness, from the Potomac to Spotsylvania Court House, and was at Cold Harbor and Gaines's Mill. He was blown up by a shell in



ROBERT L. TAYLOR.

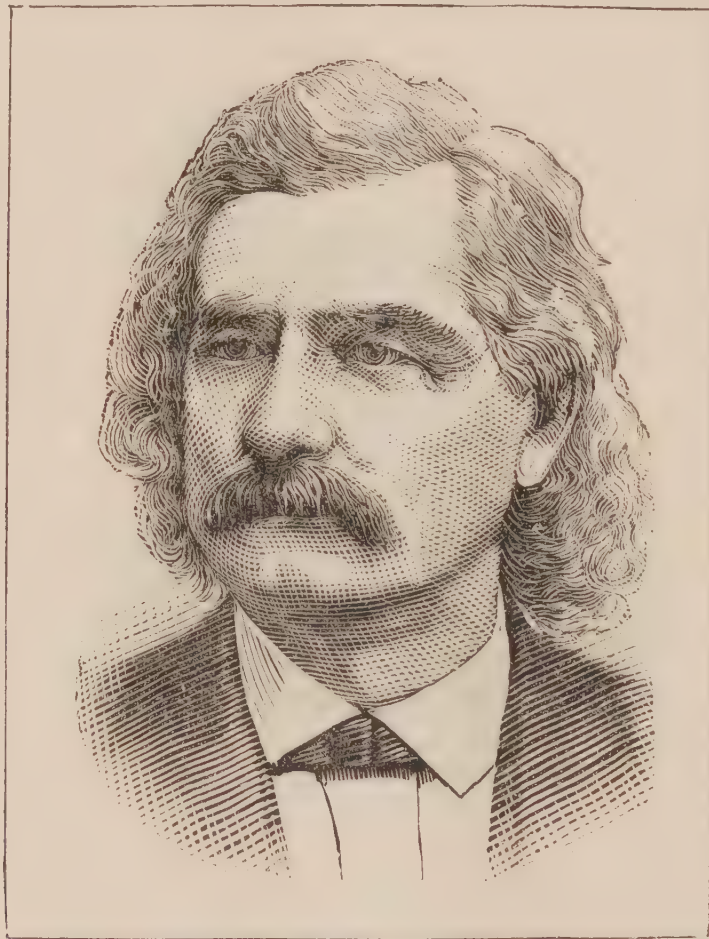
the "Bellefonte Fencibles," under Captain Andrew G. Curtin. Young Beaver took great delight in the Fencibles, became proficient in drill, and upon a vacancy was elected second lieutenant of the company. Three years after his admission to the bar, when the rebellion broke out, Lieut. Beaver went into active service with his company, under the three months' call, and the time expiring July 26, was mustered out of service, but promptly re-enlisted again. In October, 1861, he helped to organize the 55th Pennsylvania Regiment, and was elect-

front of Petersburg, and lost a leg at Reams's Station, and then retired from active service. Returning to Bellefonte he engaged actively in law practice and married. He took a prominent part in politics at once, and became well-known as a stump speaker in political campaigns. In 1880 he was the chairman of the Pennsylvania delegation to the Republican National Convention at Chicago, and was brought forward for Vice-President, but declined it, his own State intending to put him forward for Governor. In 1882 he received the

nomination for Governor, but owing to a party revolt against the so-called "Cameron machine," was defeated by the Independent candidate.

Gen. Beaver was one of the Commission to supervise the erection of the Insane Asylum at Warren, Pa., and for years has been President of the Board of Trustees of the Pennsylvania State College, in Centre County—formerly, the State Agricultural College, and a member of the Board of Trustees of Jefferson College and Lincoln University (colored) at Oxford, Penn.

whose descendants have figured as governors of South Carolina. Colonel Richardson was graduated with some distinction at the old South Carolina College, at Columbia, in 1849. Entering the arena of politics, he was a few years later chosen a member of the House of Representatives of his state in 1856, and remained there until 1862, when he joined the Confederate army, serving upon the staff of General Cantey in the West until the war ended. After the war Colonel Richardson represented Clarendon county faithfully



BENJAMIN T. BIGGS.

JOHN P. RICHARDSON, who was elected by the Democratic party for Governor of South Carolina, was born in Clarendon county, in that State, in the year 1831. He has a family record of no mean distinction, being a son of the late Governor John P. Richardson, a great grandson of General Richard Richardson, who was a prominent man in the Palmetto State both before and during the Revolutionary war, and four of

through all the dark and troublous days of reconstruction. He was returned to the Legislature in 1878; in 1880 was elected State Treasurer, and in 1884 again received the majority vote of the people for that office.

JOHN F. SWIFT, who has been placed in the seat of the chief executive by the success of the Republicans of California, was born at Bowling Green, Kentucky, February 28, 1829, but spent most of his

boyhood at Exeter, Illinois, whither his father removed. At twenty-three Mr. Swift went to San Francisco, and he began life there as a dealer in produce. He was successful in business, and retiring from it after four years, studied law and was admitted to the bar in 1856. He was made a member of the Legislature in 1862, in 1873, and in 1877. In 1880 he was appointed by President Hayes a member of the Commission to make a treaty with China. Mr. Swift returned two years ago from that service, after a journey around the world. He is the author of a book of travels entitled "Going to Jericho."

ROBERT STOCKTON GREEN is a native of the state that has given him her chief office having been born at the old university town of Princeton, N. J., March 25, 1831. He was sent to the college there, then known as the college of New Jersey, and completed the course of study in 1850. Choosing law as his pursuit he was licensed to practise in 1853, and took up his residence in Elizabeth, Union Co. Taking some interest in the political movements of the town, he was elected City Attorney and held the office from 1857 to 1868. From 1868 to 1873 he was a member of the City Council of the same city. From 1862 to 1865 he was Surrogate of Union County, and Presiding Judge of Union Common Pleas Court from 1868 to 1873.

In 1873 he was appointed a member of the Commission organized to prepare and suggest amendments to the Constitution of the State. In 1875 he was admitted to practise in the courts of New York.

In 1884 he was elected a Representative to Congress from the Third District by the Democratic party. He was a delegate to the National Democratic Conventions of 1860 and 1880. Judge Green as a member of the House of Representatives, has served in the Committee on Elections, and in the Committee on Private Land Claims.

ROBERT L. TAYLOR. One of the most

remarkable campaigns in the history of the country has been that of the Taylor brothers, Alf and Bob as they are popularly known, who were nominated respectively by the Republican and Democratic parties as candidates for Governor in Tennessee. They stumped the State speaking and playing the violin together, thus "arguing and fiddling" for support. The result proved that Bob was the more popular man.

Robert is the son of a well known minister of the Northern Methodist Church, most of whose life has been passed in the northwestern counties of Tennessee in preaching and farming. In politics he is a Prohibitionist, and at one time it was suggested that he should make a third candidate in this curious contest, running on the Prohibition ticket in opposition to his two sons. Robert is about thirty-six years of age and made his beginning in politics in 1876 when he defeated Mr. Pettibone for Congress. His reputation as a campaign orator was made at that time, and has been well sustained since. In the canvass which terminated in the election of Howell E. Jackson to the U. S. Senate, Robert Taylor the candidate of East Tennessee, lacked but three votes of being chosen. He has been East Tennessee's representative in every State contest for the past six years, and is said to be conspicuously the candidate of the young Democracy of the State.

Alfred Taylor is said to be more sedate and conservative than his brother. Both have black eyes and dark complexions. During the canvass the rival candidates travelled from place to place together, and carried on their discussions of politics in the form of a continued debate. They spoke several hours daily at the conclusion of journeys which could be made only at the cost of much fatigue. It is reported that in one period of seventy-two hours they rested only five hours. The difficulty of their campaigning will be understood when it is said that in order to speak in Woodbury on

Sept. 18 they were obliged first to ride forty miles over rough country roads. Their discussions throughout were conducted with true brotherly amiability, and is described as "a duel of principle, not personality." The debates in the 'country districts were usually closed by a performance upon violins. It was known in Tennessee that they were skillful players, and the audiences they met among the mountains were not willing to let them go without an exhibition of this very popular accomplishment.

HON. BENJAMIN T. BIGGS, the "Delaware Plowboy," was born in New Castle County, Oct. 1, 1821. His father was John Biggs, a farmer, born in Cecil County, Md., but removed early in life to Pencader Hundred, New Castle County, Del. Benjamin first began attendance at the public schools of his neighborhood, and at the age of nineteen years was sent to the New Jersey Conference Seminary, where he continued two years. For the following two years he taught school, after which time he entered the Wesleyan University, at Middletown, Conn. Upon his return home he engaged in farming on land owned by his father, and continued to reside on the estate for nearly twenty years, dividing his attention between cereal and peach culture. This, to him was congenial employment, and the calling of his life, but a strong inclination

to oratorical exercises often drew him into the field of literature and to take part in the public or patriotic assemblies of the neighborhood, and finally in public life.

In 1846 he was commissioned by Governor William Temple, Major of the Delaware regiment which was raising for the Mexican war, in anticipation of a call for troops by the United States Government. In 1852 he was elected, on the Whig ticket, a member of the Constitutional Convention called for the purpose of amending the State Constitution. When the Whig party ceased to exist, and was succeeded by the "Know Nothings," he refused to join that party because of its proscriptive character. In 1854 he acted with the Democratic party, and as his former party affiliations did not dispose him to advocate the doctrines of the so-called "American," party, he has since been identified with the Democracy of his State. In 1860 he was nominated Representative in Congress on the Democratic ticket, but was defeated. In 1866, when the Queen Ann and Kent Railroad was in its infancy, he was made one of its directors, and in 1874 was elected president of said road, which position he holds at present. In 1878 he was again nominated for Congress, was elected, and re-elected in 1880, thus serving for two terms. He now resides in Middletown.

THE OUTER AND INNER MAN.

A MAN'S thoughts and feelings stamp themselves on his countenance, and gradually they shape his form and bearing. Not all observers are equally quick at reading these records of the inner life, but everybody knows more or less of them, and sooner or later the writing is so plain that all can read it. If there is a convention of clergymen, or of physicians, or of teachers in town, there is little difficulty in picking out

the delegates as one passes along the street. The influence of the professional life in such a case is manifest in the expression of face and in the manner and movements of the whole outer man. In a hotel rotunda it is comparatively easy to say who are the actors, who are the stock gamblers, who are the newspaper reporters, and who are the commercial travelers. In any group of persons, the man who is of an exceptionally winsome

spirit and kindly manner stands out in marked contrast with one of ill-nature and of severity of spirit. So far all will admit. But not all realize that just as an unvarying succession of similar experiences tends to the shaping and stamping of the external features, so, also, every momentary indulgence of thought and feeling has a tendency thus to impress itself upon the entire man. The fact that the result of this tendency is not at once obvious in every case makes the tendency itself none the less real and sure. But the recognition of a truth like this ought to have power in

shaping and controlling one's thoughts and feelings, which in their turn are shaping and controlling one's features and one's form. Even the briefest giving of one's self to impure or ungenerous or unlovely or unholy reflections or longings tends toward an imprint of a corresponding impression on the outer man to be seen and read of all. Any thought that we should deem to our discredit to have known to the world is a dangerous thought to give place to in our innermost minds ; for it is a thought that is liable to show itself in our faces to all the world.—*S. S. Times.*

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 13.

ACQUISITIVENESS.

IN this earthly life of ours we need many things, food, clothing, shelter for our bodies, and instruction and diversion for our minds. We need these things for growth, health, strength, and nature has made us in the mind part of our organization with faculties that look after them. You must eat or the body will not grow ; so you are given a principle or instinctive impulse to seek food ; and there are the mouth, teeth, taste, stomach and so on, all provided for changing the food into the matter which the blood carries through arteries and veins for nourishing the different tissues of the body. I have already told you how Alimentiveness works, and now point you to another faculty that has to do with supplying our physical needs.

Acquisitiveness, (from two Latin words meaning to look for, to seek) prompts us to get, collect and keep. It has a great deal to do with providing those things that are necessary to us in the present and future. It is this faculty that stimulates us to work for money or any other things that we are desirous to own. Most of the other faculties look to it for the means for their exercise and enjoyment. A kind, generous man likes to

help people who are in want, and he will work hard to get the money that he intends to give them. Some men labor away for years, and save up a large amount of money which they intend to devote to charitable objects. Thus Benevolence will both stimulate Acquisitiveness and depend upon it for the material it would use. Many work hard to make their homes beautiful, and to have everything that society prizes. Some want to be rich because they think they will then do as they please, eat and drink, go here and there, and enjoy themselves as much as they like. This, you know, my young companions, is a rather low and selfish idea of life, and not at all worthy a true man or woman. In children we may expect to see Acquisitiveness act in a selfish way, because then it has not the restraint of the higher faculties. When a little fellow is given a toy he is delighted usually to call it "mine," and you may know that the boy, who is often counting the few cents he may have, and does not want to spend them, has large Acquisitiveness, and is likely to become a close, saving man.

The organ is situated in the lower part of the side head, in front of Destructiveness and directly over Alimentiveness.

(See No. 9 on the diagram). When large the "temples" in front of the ear are pretty well rounded out, and if the



DIAGRAM OF HEAD.

neighboring organs are large that whole region will be expanded and make the head appear very wide in front.

Did you ever know a miserly person—one who was forever counting the cost of everything, and when he was forced to buy an article of necessity would haggle and haggle to get it as cheaply as he could? If so, you must have noticed how broad his head was at the lower border of the "temples." Generally stingy, mean, grasping people have low, squat heads, and you know from their faces what to expect in their characters. Sharp, pushing, business men have a good development of Acquisitiveness, but the business man of great capacity has large reasoning organs, Constructiveness, Cautiousness, and other strong elements that combine and influence the propensity to get.

Will Acquisitiveness make one steal? Yes, if it is strong and not properly checked and balanced by knowledge of what duty requires, and by the faculties that prompt to self-respect, obedience and kindness. But people do not usually steal for the mere sake of getting money.

A youth who grows up without proper guidance in mind instruction, who has not been taught to support himself, is lazy, and prefers to lounge about and "enjoy himself" in games of chance or attending theatres and "shows," is likely when hard pressed for the means to supply his wants to purloin money or property. But it is not Acquisitiveness alone, you see, that produces such a result. Many a man has been led to steal and rob, not because he was by nature any more vicious than the average of people around him, but because he had not the skill, tact and industry to acquire the comforts of life in a proper way, and to feel that he must save his loved ones from cold and hunger.

In many animals, birds and insects, we see this organ active. The squirrel lays up a store of food for the winter; the crow and magpie will carry off and secrete things; the bee works all sum-



GEORGE Q. CANNON. LARGE ACQUISITIVENESS.

mer to gather honey, and the spider and ant are great economizers. One of the most interesting studies in natural history is the exercise of Acquisitiveness by

the lower animals, and the selfish, cruel way in which some of them act should lead us to be watchful lest we become too covetous and grasping, and forgetful of what we owe to others. All young persons need to understand the value and uses of money and property, and should be taught something of business habits as a part of their education, and urged to be industrious and persevering about earning their own support. You may have a rich father, my boy, and think that there is no necessity of your ever working; but life is so uncertain in every sphere that before you will have a chance to touch a cent of father's money

those who were confined in prison into classes, according to the sort of crime they had committed, as murderers, thieves, forgers, etc., and tried to find if there were any particular region of the head very strongly developed in these classes of wicked men. He became convinced that murderers were generally very large in that part we now call Destructiveness, and he was inclined at first to name that organ *Wurgesinn*, or the instinct to kill. He found that most thieves were large in the middle part of the side head, above Destructiveness, and so he felt himself warranted in saying that those vicious fellows



A SMALL TRADER.



A BANKER.

he may be poor and dependent upon the help of friends for your very bread.

SECRETIVENESS.

Let me give you a leaf from the history of this organ, young folks. When Dr. Gall was collecting facts and evidence for his new system of the brain, he visited all the institutions of Vienna and neighborhood, prisons, hospitals, asylums, reformatories, etc., being anxious to get all the proofs he could for the support of any organ he thought that he had discovered. He divided

were prompted to steal by the organ itself. He called it *Schlaueit*, or slyness. Later on as he came to understand better the real nature of the organs and their influence upon each other he gave these and other organs more accurate names and definitious.

Now-a-days there are many scientific men who believe that very bad persons, those who are so perverted or corrupt that if they are at liberty they break the laws constantly, and so must be kept in prison to save other people from harm or loss, are unfortunately constituted;

i. e. their brains are badly shaped, having too much substance or development in one part and not enough in other parts. They say that the hard criminal has a head that is very large in the parts around the ear, and as it is low in the crown it is out of shape and *abnormal*. In Europe there have been exhibitions of criminal skulls and casts in plaster of the brains of murderers, robbers, etc. In the fall of 1885 there was a very large exhibition of such criminal *data* in Rome, Italy, and it became the subject of much discussion.

Here, you see, the idea of Dr. Gall is taken and carried to a much further extent than he intended, and that by men who make the study of insanity and dis-

could be kept and efforts made for their improvement, or they at least should be under restraint so that they could not annoy or harm people who respected the laws and tried to live in peace. Now the most intelligent among us know that Dr. Gall and his disciples, like Spurzheim, Broussais, Elliotson, Combe, Sir James Macintosh, Dr. Woodward, Caldwell etc., were right in this view.

You are not too young to look into this subject, and by studying yourselves carefully will soon discover what faculties are weak as compared with others. You already have strong impressions about the respect in which you differ from friends and companions. By self-study you will see how these differences arise, and I can assure you that you need not feel discouraged because you have found that Jim or Jack is naturally quicker in perception or has a better memory, or is more generous and kind-hearted, or can make friends more easily, for you can, if you will set about it right earnestly, make a great change in yourself in the course of time, just as you can by gradual practice make your muscles stronger and more nimble.

Secretiveness is a valuable faculty, and you will recognize it very quickly in some of your companions when I tell you that its use is to conceal or hide inner thoughts and intentions, and so to restrain the other faculties in their expression. Some people are very open and transparent, they tell everything; while others keep everything to themselves. I know boys, and so do you, who have very little to say; if they go away from home to visit, on returning it is the hardest thing for mother and sister "to get anything out of them" about whom they saw and what they did. Some girls show large Secretiveness by the sly and artful way in which they do common things. In play they will slip around very quietly and watchfully, reminding us of a cat. There's the organ of Cautiousness that I shall talk about soon; that disposes one to be



CZAR OF RUSSIA. SECRETIVENESS—FULL.

orders, and the causes of vice and crime a special subject. Dr. Gall was blamed by a great many people, because he said that some poor wretches had been born with such natures, so weak, excitable, and unbalanced, and had been badly trained or had grown up amid such bad influences that they could scarcely help doing wrong. He wanted the government to provide places where these unfortunates

on the lookout for danger—if it is large ; with Secretiveness pretty well-grown you may depend upon it the person will be close, watchful, cunning, and, if not well-balanced, tricky and deceitful.

The head of the Czar of Russia looks large at Secretiveness in the portrait ; it is very high in the crown too, like his father's ; and I think that the way he acts about keeping himself secure from the Nihilists, who, he thinks, want to kill him, shows very active Secretiveness ; although he is anything but a timid man.

You like open, frank characters. So do I, but as things go in the world it is necessary for us to be wary and prudent in our words and actions, otherwise we shall be constantly getting into difficulty, injuring our own cause or annoying some one. Too much Secretiveness, on the other hand, will make others suspicious of us, and think that we are playing some deep game, while a disposition to keep our own affairs to ourselves, and to deal in those things that bring us in contact with the world fairly, yet with a certain degree of shrewdness, will command the respect of people.

All the animals that prey upon others, cats, foxes, rats, weasels, etc., show Secretiveness in their cunning and watchfulness, but those that live on grass, herbs, fruits, etc., show little of the faculty. The horse, ox, sheep, rabbit appear to be careless of their surroundings and the opposite of sly, because their food is obtained with little effort. Some birds exhibit the quality in a really astonishing manner. A partridge that has young will delude the hunter, leading him away from the place where her brood is concealed by flying up in front of him, and appearing to be wounded, that the hunter may think her easily captured.

CONSTRUCTIVENESS.

There was a great naturalist who said that man is "the cooking animal," and

although you might at first think this not much of a compliment to your kind, yet it will be found on reflection to mean a great deal. To cook involves the use of many things, with a knowledge of their application. First a fire must be made before the cooking can be begun. To produce fire, a very easy matter now with so many different kinds of friction matches at hand, was in primitive times, and especially in savage life, far from easy. Before men had the old flint and steel, with which to strike sparks that were caught by some quick combustible, like tinder, they had to rub two pieces of wood hard together until they became so hot that they set fire to the scrapings or dust of the wood, and when a fire was fairly started they tried to keep it going, and one man borrowed from another bits to start one in his own hut. Then there was the preparation of the meat by cutting into slices for roasting, and although their methods were rather rude we can imagine our early ancestors discussing over-done and under-done cuts with an interest not unlike that which our modern good-feeders show.

Many animals exhibit really astonishing skill in building nests, and in planning to catch other animals that they kill for food, but none have ever shown any disposition to make a fire or cook. In South Africa monkeys have been seen to come down from the trees and gather around a fire that had been left by an exploring party, and they seemed to enjoy the warmth and glow, but made no attempt to keep it going, although plenty of fuel was close by. The chattering little fellows had been closely watching everything the men did while cooking their dinner, but they had not learned the relation between the putting on of wood and keeping up the flame and warmth. The beaver, muskrat, oriole, swallow, stickle-back, bee, ant, spider, are able builders, each in its way giving an example of the Constructive faculty that is suited to its habits and wants, and which is repeated by the

same species of animal, bird or insect, in exactly the same way year after year. You look into the bee-hive and you will see that all the bees make honey-comb alike, one about as good as another ; and the beaver erects his little dam in the stream just as other beavers do, and have done for hundreds and thousands of years. But men use Constructiveness in a great variety of ways, and some have very little skill to use tools or cultivate things. Here you will see one who is a genius in inventing new machines, and there is another who is such a bungler that he can not handle a pen-knife

ness and you may expect them to be awkward and stiff in attempting to handle tools, and as a rule they don't care to do so.

The world is dependent upon the exercise of this faculty in a very great degree for its progress in science and art. Just think of those wonderful inventions, the steam engine, the printing press, the locomotive, the telegraph, the sewing machine the ocean steamship—What would we do without them? There are a thousand things you could think of, if you would stop a little while and consider, things you wear, use, see and



THE BLACKSMITH SHOP.

nicely in sharpening a pencil. Some boys have a knack of doing things ; they can take an old watch or clock to pieces and put it together again so that it will go ; they are fond of making things, and when out of school will be working with saw and hammer a good part of the time. Their heads are broad in the temples about where the hair begins to grow. Boys who are flat and narrow there have small Constructive-

ness hear every day and that have become matters of absolute necessity to people, yet two or three hundred years ago they were entirely unknown. Man's Constructiveness has produced them, and so made the world richer and you and everybody more comfortable. Why, how much better people to-day are housed, and they have far more comfortable things than the rich of three hundred years ago. The stories of

knights, and ladies, and castles young people think so fascinating don't tell much about the gloomy, severe, cold rooms those fine people lived in, and the coarse food they ate, and the few conveniences in doors and out they had.

In combination with his intellect and stimulated by his desires and growing necessities Constructiveness has helped man to live everywhere and adapt him-



R. M. GATLING. CONSTRUCTIVENESS LARGE.

self to all sorts of changes, and wherever his necessities are greatest there this faculty shows the most activity. Individuals show different kinds of ingenuity according to the development of the other faculties that work with Constructiveness. Some like to do that which requires a good deal of strength; for instance black-smithing or laying up stone work; they have large muscles, and large Firmness, Destructiveness and, perhaps, Combativeness. Others who are light in frame, have not much muscle, and are but moderate in Firmness, Self-esteem, and Combativeness like work that is rather delicate, and if they have much taste for things that are

ornamental they prefer such trades as the jeweler's, engraver's, and painter's.

All the operations of home use Constructiveness. Some girls don't incline at all to housework; they dislike sewing, embroidery, and other employments that are considered the special province of women; they are wanting in this faculty and in love o home, and are usually weak in Veneration. I knew a young man when I was a boy who used to spend nearly all his time, when not at school, in helping his mother in the housework, and making ornaments for the rooms; he was very ingenious in arranging leaves and mosses in attractive forms. His schoolmates called him "Sissy," but he did not care for that. Later he learned the jeweler's trade and became very skilful at it.

Mr. Gatling, the inventor of that terrible shooting machine, the Gatling gun, that will fire off hundreds of big bullets a minute, and of other things, has a very broad head in front, and does not look at all as ferocious as his terrible gun makes some people think he must be. He looks as if he were ingenious, certainly, and his head is very large in the organ we have been talking about, as you all can see.

THE CREDIT OF IT.—It is of course everywhere confessed that Gall and Spurzheim made great advances in physiological science, and their method of unfolding the brain, instead of slicing it, was a discovery of the very highest consequence. This has been of late years admitted by all authorities. In advance of their time they were right in proclaiming the doctrine of the localization of functions in the brain, and of the effects of quality and quantity, and of Temperaments in organization. It is everywhere conceded that the brain is the organ of the mind. . . . We ought to tell at a glance the great Temperaments and their mixtures.

JOSEPH COOK.

HOW LIBERTY GROWS.

As summer wanes, the throngs that go
Over the famed and honored bay
With eager eyes are seeking to know,
"What have the workmen done to-day?"
And how—Dame Liberty grows.



Not pride alone—love thrills the breast
As we watch the stately form
Grow up from her rocky isle of rest
Through sunshine and through storm.
Love bids us—"See how Liberty grows."

"Not alone for us will the stately dame
Hold aloft her gleaming light,
A guide to the craft of every name
Through the starless, stormy night,"
We say—and watch how Liberty grows.

Other eyes—long years from now—
Will loving gaze on the form so grand,
The "look-out" over the hastening prow,
Will call—"Land, ho! we're nearing
land,
The light of Liberty grows."

Love has made the gift sublime.
Art has made the form so grand,
'Twill withstand all tests of time,
Like to our glorious land—
Wherein *true* Liberty grows.

Like thee, our wide, free land has grown.
From the eastern sea—her first foot-rest—
She builded slowly, stone by stone,
Till her bound—is the sea on the west—
With her growth, true Liberty grows.

In Liberty's temple sometimes hide
Evil, dark-browed ones who seek her
bane;
Or foul-mouthed plotters scheming glide
Almost within the sacred fane—
They hate to see—how Liberty grows.

And treason throws her mantle vile
About some weak but loyal son,
To mock the faithful guards and so beguile
The mass—until great wrong is done,
And so—alas—*false* Liberty grows.

True type art thou, O grand, fair dame,
Of that liberty we most revere;
Strong and clean, high and wide of fame,
And rendering the pathway clear,
To the port where Liberty grows.

Shed forth thy light, O fearless one!
When night reigns o'er our world,
And smile on us as does the sun
When all his banners are unfurled
O'er the land where Liberty grows.

MRS. A. ELMORE.

SEPTEMBER, 1886.

PRACTICAL LOVE.

“I LOVE the church fifty dollars worth to-night; my wife also believes in practical love and practical religion, and wishes her name put down for the same amount.”

After making this little practical speech Mr. Brownly sat down amid the admiring smiles of the assembled congregation. Following this were a number of other generous donations, so that very soon the required sum for paying off the old debt was subscribed. As the people were leaving the church at the close of the meeting Mr. Brownly's cousin, Joe Benton, accosted him with, “Don't be in a hurry, Cousin John; I am going by way of your house to-night. As we walk along perhaps you can explain how it comes that you can afford to be so liberal; not that I think this one hundred dollars of yours to-night so very much, but, you see, this continual giving a little here and a little there amounts to a great deal in the total; and then—and then—”

“Well, and then, what?” inquired Cousin John, with a knowing twinkle in his eyes.

“Why, I don't see the need of your wife's name down for one-half of your subscriptions, when the money all comes out of your pocket. Your wife was but a poor girl when you married her.”

“Oh, that's because a man's wife is his better half; and that is the better part of my giving. As for my always being so liberal I really wasn't aware of being particularly so. Wife and I have had a way of our own for these many years and have become so accustomed to it that I wasn't conscious of there being anything singular about it. We both keep an exact account of our expenditures and receipts, and the one-tenth of our income above expenses is set apart for benevolent purposes. As for my wife's being a poor girl, there you mistake, for she was in fact very

rich, rich in health, goodness, beauty, common sense, intelligence and sweetness of disposition. I tell you I married a fortune in my wife, worth more than all the gold mines of California; and it has ever been my care to see that none of my wife's wealth shall be squandered. And now after twenty years of wedded life I have one of the most light-hearted, healthy, happy and joyous of women. From our marriage day to the present time wife and I have considered our marriage to be a partnership in which the one-half of all our possessions rightfully belongs to each of us. In money matters as in everything else one-half of our whole income is given into her hands to do with as she pleases.”

“Well, how would such a plan work for all women?” queried Cousin Joe, “your wife is an uncommonly sensible woman; there aren't many like her. Now, for most women to have money in their own hands in that manner they would soon have it spent in a very foolish way.”

“That would be entirely their own business,” was the rather sharp response. “For the woman foolishly to hoard or foolishly spend her own rightful half is much better than for the man to hoard foolishly or spend the whole of it, thus selfishly robbing the wife of her own. Women are wiser economists and better managers than many men imagine; but some are too conceited and selfish to give their wives a fair trial and find out. When I married I determined, if possible, to have the loveliest wife and most charming home that this earth could give, and I trust you will pardon my conceit when I say I am supremely happy in the consciousness of such attainments.”

“Well, John, you do seem to have made some lucky strikes in your life, that's a fact. Of course I never tried your plan; I don't think it would work well in my family. Yet I have often

thought it would be very fine if I could only get things to running in my home as if they were oiled, as they do in yours."

"Let me tell you, Joe, there is one wonderful word that works like magic. Sometimes I have spelled it over to myself, and thought of the height and depth of its power. Now don't think I am getting sentimental in my old days, when I tell you the word is love. Every man is supposed to love his own wife, if fortunate enough to have one. But in some cases it is only a supposition, while the truth is, the husband is being fairly consumed with love of himself; he is loving his own contemptible self with so great a love that when his wife's self-denial pleases his fancy, and her womanly ministry is satisfying to him, he imagines his overweening love of self to be an affection for her. I am only a very practical man, and when I say I love an object, whether it be wife, child, church or state, I mean that I think myself willing to deny self for their sakes, and not that I am filled to overflowing with such a self-love that I am greedy to monopolize every surrounding good without giving in return. I have a recipe for making happy homes that is more effective than any wizard's charm, but it is not every man who will swallow the dose."

"John, you always were a queer chap; but I can stand your queerness if other folks can. What new recipe have you?"

"Oh, it is nothing new; it is old as the Sermon on the Mount. It is only this 'Husband, love your wife as yourself.' Whatever you keep for yourself give as much to her. I know there are some cross curmudgeons of women that it is a wonder any man ever imagined himself in love with them. But still it is their husband's duty to give them a fair showing. But here I am home, and, so, Cousin Joe, we must finish our talk another time. Give the recipe to your neighbors, and tell them to digest it in

the practice thereof. Good night, Joe."

With a responsive good night, Joe Benton went his way homeward. When his own house was reached and he entered the door-way no welcoming smile greeted him. Only a cold supper and a scolding on the end of his wife's tongue awaited his tardy return. With a half-dozen romping children to care for and all her own housework to perform, with a frequent addition of hired hands to cook for, what wonder the woman looked haggard, and cross, and altogether unlovable. Joe Benton mentally contrasted the scene before him with the bright, happy time that he knew his cousin John would be enjoying in his pleasant parlor, beaming with the sunshine of wife and children; and the more he thought the heavier grew the scowl on his brow. In sullen silence he ate his cold evening meal; and there was no one in the family with sunshine enough to dispel the gloom. A disagreeable evening was passed and when bed-time came all were glad to forget the grim unpleasantness in sound sleep. But Joe Benton's sleep was neither sound nor sweet, for uncomfortable dreams haunted his pillow. His wife seemed to have taken possession of his farms and was owner of his herd of cattle and drove of hogs, while he was a helpless dependent, and hadn't a dollar of his own only as he could coax his wife into letting him have a little money when he sorely needed a new pair of boots; when his best coat was entirely thread-bare, she would give him barely enough money to buy a poor article of the kind he wanted. Then his wife managed the whole farming affairs and sowed wheat where corn should have been planted, and did everything generally to annoy him in an exceedingly vexatious way.

When morning dawned and Joe Benton opened his eyes he almost expected to see before him the little imp that had broken his sleep with such troublesome dreams. But the trouble was only his invisible conscience that had awa-

kened and was trying to arouse him to a sense of duty. To quiet conscience he offered it a compromise. And as soon as his wife awoke he said in a gentler tone than was his wont: "Wife, mine, I have been thinking over the past and it seems to me that we both have worked pretty hard these years and ought to be taking times a little easier now; you are not so strong as you used to be, and if you could hire help so you could be more rested and cheery like, you would enjoy life better and matters all around might be pleasant-like. I never could see my way clear to do as Cousin John does in his affairs; but I have concluded to give you twenty dollars a month the year around, if that will suit you." Now, Joe Benton thought himself doing an exceptionally generous act, and expected his wife to smile upon him like an angel and to overwhelm him with an outpouring of thankfulness; but the only reply was a smothered sob from the depths of the pillows, and his wife lay by his side crying as if her heart were breaking.

"Well, women are the strangest creatures I ever did see!" was Joe Benton's mental ejaculation.

The well-meant, kindly tone and an offer more generous than her stunted life had known since girl-hood days so

deeply touched his wife's feelings that she could not at first reply, but when she calmed down enough to talk, the husband's heart was fairly melted under the tender gratefulness of her words; and he began to feel that he had done a more noble thing than his act of tardy justice deserved.

Mrs. Benton might have reproached her husband with her broken down health and fretful temper, but she wisely refrained, and only sought to brighten and cheer the days of the future; and this morning was but the dawning of a happier time. Joe Benton became convinced that practical love was a very good thing. And if he never became able, like Cousin John, to love wife and children as himself he could at least, love them as well as a part of himself.

And many a time in after years was he heard to declare that the twenty dollars a month he gave his wife for spending money was the luckiest investment he ever made, for he was positively growing rich in happiness. And his sunny-faced wife and cheerful home were to him a regained paradise. All his bargains in land and cattle were to him as nothing compared to the household that had become his joy and pride.

LISSA B.

PA HOGFJELLEN.

ON THE HIGH MOUNTAINS.

BY OSCAR FREDERICK, KING OF SWEDEN.

IF any one wishes to journey with me up the snow-clad heights of Sognefjellen he is welcome. But we must hasten, for there is no time to lose; day dawns and there is a long distance before us. Yesterday we ascended two miles above the highest region in Lom, yet there are still five long Norwegian miles to travel ere we reach the coast in the diocese of Bergen. If we do not arrive at our destination before evening, we may have a rough night of it up there

among the snow *gubbarne*. So to horse and away.

We must say farewell to the Saeter-nians on the quiet shores of the deep mountain lake. We do so with a feeling of regret. How strange and cheerless appeared to us at first the Saeter life and the Saeter homes! How humble their low and dark dwellings seemed as we entered, but so sincere and cordial their welcome, so generous and kindly their hospitality, that the tired

wanderer finds real rest and comfort among these pure-hearted children of the mountains. They have given us their best, most excellent milk, newly made butter, fresh deer-meat, and those unequalled *Orreter* that we have seen fished up from the cool snow-water in the lake below. After this excellent meal, enjoyed with the keen appetite the mountain air has given us, we feel a refreshment and pleasure only excelled by the delightful sleep we have on our soft bed of fragrant, new-made hay. As we say farewell the pretty Budjerne in their neat national costume are standing on the threshold, and nod back to us their friendly farewell, and wish their hearty *Lykke paa Reisen* (good luck on the journey). There they stand, following us with their eyes, until we have disappeared in the footpath which winds around the nearest mountain peak. Footpath it is called, but I have never conceived before of such a *riding-path*. It needs a rare race of mountain horses to carry the rider safely forward on the narrow way winding between the swiftly falling waters, on which one fears every moment to be borne away, as we go over precipitous heights where a few yards distant, yet twenty fathoms down, death seems silently awaiting the traveller. Now we pass over the steepest slopes where nature seems to have delighted herself in heaping together masses of the sharpest rocks, whereon no ordinary horse could obtain a footing. But our fearless and sagacious creatures, so skilfully and carefully balance every movement, and consider their least step, that we learn to trust the brave faithful animals, and lose our fear as we are borne so steadily and safely over the very edge of the most terrible precipices. As higher we ascend the mountain the sound of the cow-bells and the Saeter horns gradually dies away in the distance. A sharp, cool wind called the "Fjeld-snow" sweeps along the valley and soon removes even these signs of social life and civilization. We

have left the village far behind us. In all its majestic grandeur, in all its solemn solitude mountain nature rises before and around us. The only sound that breaks the stillness is the roar of the rushing Baever river; but as higher we ascend the mighty river narrows into a murmuring stream, falling down a steep and steeper precipice till transformed at last into a babbling brook it leaps from stone to stone, plunging from step to step, twisting its silvery bed into the most fantastic and varying curves.

We have been wrapped all the morning in a dense fog, but suddenly the Fjeld-snow begins to drive all the clouds before it and sweep them far up the Alpine heights. Now between the parted clouds the blue heavens peer forth, and over the cold, clear rocky expanse the warm light gleams. Warmer and brighter glows the light.

The clouds break away. Oh, what a sight! Never, never will it leave my memory. Uneffaced and uneffaceable its impression remains. Before us rises a great glacier called *Smarstab-braeen* (the Smarstab-lake), from whose cold bosom springs our old, familiar Baever-elf (river Baever), which through so many weary windings reaches at last the western sea. The sun's brightest noon-tide rays are playing upon the shining surface of the glacier. Now it flashes as the rarest diamond; now it is as clearly transparent as the purest crystal; now, it changes from green into blue, like the most beautiful beryl or sapphire, and all the varying hues are the reflecting glories, the changing shadows of the fast-floating clouds. All heaven is glowing on the glacier's breast.

Above this sublime glacier towers a mighty peak with the wild name of *Fanarauken*. It stands like an independent outguard of the mountain range that is known as *Hurungatindarne*, and forming the loftiest ridge of the Sogne mountains. The sides of the Fanarauken are partly covered with the purest white snow, but in other parts they are darkly

shadowed gray, nearly black, investing it with an almost spectral gloom, when seen from its background of light green, the color of the air always near the region of eternal snow. The peaks of the Hurungatindarne, at a height of from 5 to 9,000 Swedish feet above the level of the sea, are steep and craggy. The snow fog, *Fjeldskodden*, seems to wrap itself around these points, and when a breeze strives to drive away these light clouds they hurl themselves upward till one seems to see in the bursting clouds hovering over the peak a half-extinguished, smoking volcano.

This unusual effect heightens the picturesque grandeur of the scene. Before us as far as the eye can reach are snow-covered plains and heights. It is the fifteenth of August; we have now reached the realm of snow. We spring from our horses to throw snow-balls. We have long since left behind and below us the last, little, dwarfed birch six inches high. The air seems suddenly cooled. It resembles a clear, cool spring morning in Stockholm when the north wind blows, but here the air is more refreshing. There is no unpleasant rawness causing colds or debility. One feels that health has taken up her abode here. We breathe it in with every breath. As the eye entranced roves over the endless, lofty plains, so the lungs with delight inspire the pure, exhilarating, mountain air. One feels in a happy yet thoughtful mood. Thought and emotion rise with the ascending peaks and the expanding scene. All is pure and peaceful and lofty around us. The consciousness of this is so much sweeter after the oppressive and burdensome weight we felt when passing through the narrow Saeter valley with the over-hanging rocks above our heads.

So far, far away from the busy world where we daily move, we feel almost separated from earthly life and suddenly placed face to face with nature's Almighty Creator. Here one feels his own littleness and weakness. But a snow-

cloud and one is buried; but a fog and one loses the only slightly marked path guiding the mountain traveller home.

I have never before been so impressed with a sense of sublime solitude. I seemed only a speck in the great universe; almost lost in infinity. I have felt something like this in a severe storm on the lonely Atlantic, or when I have viewed the sandy sea of the Sahara from the pyramid of Cheops; but the pyramid is not so far from a cultivated region. I could turn around and see the minarets of Cairo, and on the sea the national vessel, at least, was a resting place for the eye, and I felt as if I had my home with me surrounded by people who participate in a work that furnishes me complete employment. Here, away from the crowd of humanity, I am only a mere grain of dust upon the deep snow-drift, where mighty nature can suddenly be roused from her sublime rest to the most devastating, most over-whelming fury, swiftly shrouding the wanderer in a snowy grave. Yet here we suffer no want, it is rarely one meets with an accident. With our abundant provisions, our fearless guides, our strong, brave horses, and with fresh courage and fine spirits we continue our journey. Our good spirits are the gift of the mountain, a kind of welcome or tribute of thanks to the rare travellers who wend their upward way hither.

Our caravan (for caravan we might quite aptly call it) presents a rather picturesque appearance, with our horsemen in their coarse rain-cloaks, broad-rimmed hats and high boots, and the small, long-haired riding-horses, with their strong limbs and heavy short-cut manes, and the yet smaller horses that carry our baggage in a kind of pack saddle. These wise and hardy *Klofje* horses are perhaps most worthy of our attention, at least so seemed those that followed us over the mountain. I can not understand why they do not sink under their large and heavy burdens, which seem to cover almost their entire

bodies; and still less can one comprehend how, so weighed down and overladen, they can lightly leap from one rocky plain to another, and so carefully and resolutely help themselves up the steep, slippery declivities and so easily and perseveringly wade through the deep mountain pools we meet in our way. The most wonderful of all is that these Klofje horses always wish to press forward, foremost on the way, though the path be ever so narrow, and the precipice at its edge ever so steep. Having gained the front they lead the whole caravan. Nature seems to have given them an instinctive purpose, guiding them securely and jealously on. Something similar to this instinct seems to inspire the simplest dwellers of the high valleys of Norway. Their mountain life and their daily close companionship with the mighty powers of nature have given them a calm, patient reliance on something higher than themselves. We met an aged deer-hunter on the highest part of our journey. The snows of seventy winters adorn his proudly borne head. As we saw him at first he was leaning upon his rude but sure rifle, immovable as a statue. His greeting was silent and earnest. He stood there firm and immovable as ever as we vanished from his sight. There he spends long hours and days gaining his scanty food. Hard-earned it seems to us, but he is content with his lot and knows no better; the world has not lured him to discontentment. Not far from the highest point of the mountain lay a tumble-down stone hut, deserted and far from inviting, yet this is a blessed place of refuge for travellers in rough and stormy weather. Never is grandest hotel in a great city entered with such feelings of grateful pleasure as those with which this miserable mountain hut is taken possession of by tired, frozen, and lost travellers.

But we need not rest here, the weather is growing milder and the air clearer. Midway up the mountain we saw the

horses we ordered from Bergen. To order fresh horses to meet one when ascending the mountain is always prudent. No one should neglect it. But our horses seemed by no means exhausted although we had ridden them, continually ascending, six hours to-day and four hours yesterday. In the free, fresh air our simple meal was prepared and eaten and enjoyed with the keenest relish, while our horses strolled about seeking for moss in the crevices of the rocks.

Resting an hour we swung ourselves into our saddles with renewed vigor. There was still a good five-hours journey to the coast. We had seen so much of the grand and beautiful we thought there could be nothing more grand and more beautiful yet to be seen among the mountains. But anything more magnificent can not be conceived than the view from the last *Houg* before the descent begins. Before us loom the three *Skagatols Tindarne* (the Tindarne peaks) next the highest on the Scandinavian peninsula. Their towering crests rise to a height of 9000 Swedish feet. They stand there as if near, but they are still a half-day's journey distant. Man has made his way to their base, but no mortal has ever trodden their aerial summits. So fearfully steep are they the snow finds no resting-place. It tracks the mountain wall here and there as a vine, or hides away in some deep lonely cleft, where the wind, the snow's only enemy, has lost its power. Around the peaks of this cold gray rock light snow-clouds play in ever-changing form, now embracing, now vanishing, as if suddenly driven away by an invisible hand. Around us still are the same tall, dark, jagged crests of the *Hurungatindarne*, alternating in picturesque change with the broad, blinding snow-fields, gradually expanding as we approach the widely celebrated *Justedalsbraeen*—(little inland lake). We see as yet only the outlines of the picture. Our eyes have but wandered over the snow-lit heights, but now we look down in amazement at

a great, yawning gulf through whose deepening darkness we see no limit, no end. A wild waterfall plunges down and whither? We can not see; we imagine it rushes over a fearful precipice. By a very favorable daylight the swaying sea at the bottom of this great chasm may be clearly seen, but to-day our peering eyes may not reach the innermost depth of *Syster Fjorden*. Dazzled by the intense sunlight we only dimly distinguish the mysterious surgings farther beneath even then before us.

"Surely it can not be possible that we must ride horseback down this fearful abyss?" I asked or rather thought aloud to myself, as I looked down into its terrible depths. "Yes, it certainly is," answered my polite guide with a provoking but trust-awakening calmness.

Involuntarily I devoted a sympathetic thought to my neck. These rude mountaineers are gifted with great keenness of perception. Man may have seen my fear in my flushed face and wandering eyes, and I determined to take cheerfully the only path before us and happen what might I would never spring from my horse. But we really were obliged to proceed this way unless we wished to turn back and make a long journey to *Gudbrandsdalen* (dal-valley) and give up all our glorious plans of travel among the Sogne and Naero mountains and forsake the waiting steamer, *Widar*, which had our luggage and wagon on board. So forward we went on the perilous and forbidding path.

We came safely down to the coast just

as the last mild rays of the evening sun were fading from our sight; but my pen is utterly unable to describe, the adventurous, neck-breaking journey. I can scarcely even think it over now when I try to remember the thrilling features of the most wonderful ride I have ever taken. One must not be afraid or grow dizzy easily if he would go up *Sognefjellen*. One must have faith in the mountain horse and all will go well.

I should like to unfold for my reader the lovelier pictures of the lighter scenes of my journey down *Sognefjellen's* snowy heights. I should reveal to you the luxuriant *Fortun-dalen*—(green groves) of wild cherry trees, bearing the richest fruit, vast fields of golden wheat bound in ricks, or waving oats awaiting the reaper's scythe. I should show you a majestic lake on whose transparent and glowing deep the tall mountains mirrored their beauty, leaving their fair landscape smiling beneath the wave, a mountain world above, a mountain world beneath. I should turn your gaze upward to a little garden gaily blooming on a rock two thousand feet above your head. I will show you sublimity or beauty rising, reigning everywhere. If you will ride down the rocks between *Optun* and *Lyster Fjorden*, you will receive an impression you will never forget. A summer day on *Sognefjellen*, will be to you as for me, a rich and beautiful memory—a memory for a lifetime.

Translated by LYDIA M. MILLARD.

THE CANYONS OF THE COLORADO.

IT is impossible, says one who has spent much time in travel among the mountains, for a mere description to convey any but a faint idea of the sublimity that lines the banks of the Colorado of the West. The walls rise in many instances more than a mile in height, a thousand feet of which is up through granite crags; then steep slopes

and perpendicular cliffs rise one above another to the summit. The gorge of which one view is given in the illustration of *Muav-Canyon* is black and narrow below, red and gray and flaring above, with crags and angular projections on the walls which, cut in many places by side canyons, seem to be a vast wilderness of rocks. The waters of the

river rush their winding way through the gloomy depths, plunging over steep declivities with a mad roar, spreading out into a placid bosom in some opening beyond. Clouds play in the canyon, or roll down in great masses filling the

clouds, and revealing the blue heavens. In some localities volcanic evidences accumulate. Great quantities of cooled lava and many cinder cones are seen on either side, and then comes an abrupt cataract. Just over the fall a well-defin-



MUAV-CANYON, ON THE COLORADO.

gorge with gloom, sometimes hanging above from wall to wall, covering the canyon with a roof of impending storm.

Ever and anon a gust of wind sweeps down a side gulch, making a rift in the

ed crater stands on the very brink of the canyon. From this volcano vast floods of lava have doubtless been poured over the canyon wall, where the cataract now rushes. The whole north side, as far as

the eye can reach, is lined with the black basalt, and high up on the opposite wall are patches of the same material resting on the benches, filling old alcoves and caves. Directly under the volcanic cone the rocks are broken in two along a line which crosses the river, and the beds have dropped 800 feet on the lower side of the line forming a fault.

Pro. J. W. Powell, in his report on the Colorado of the West, in referring to the volcanic features in one of the canyons, says: "We have no difficulty as we float along, and I am able to observe the wonderful phenomena connected with this flood of lava. The canyon was doubtless filled to a height of 1,200 or 1,500 feet, perhaps by more than one flood. This would dam the water back; and in cutting through this great lava bed, a new channel has been formed, sometimes on one side, sometimes on the other. The cooled lava, being of firmer texture than the rocks of which the walls are composed, remains in some places; in others a narrow channel has been cut, leaving a line of basalt on either side. It is possible that the lava cooled faster on the sides against the walls, and that the center ran out; but of this we can only conjecture. There are other places, where almost the whole of the lava is gone, patches of it only being seen where it has caught on the walls. As we float down, we can see that it ran out into side canyons. In some places this basalt has a fine, columnar structure, often in concentric prisms, and masses of these concentric columns have coalesced. In some places, when the flow occurred, the canyon was probably at about the same depth as it is now, for we can see where the basalt has rolled out on the sands, and, what seems curious to me, the sands are not melted or metamorphosed to any appreciable extent. In places the bed of the river is of sandstone or limestone, in other places of lava, showing that it has all been cut out again where the sandstones

and limestones appear; but there is a little yet left where the bed is of lava."

THE SNOW-BIRD'S WELCOME.

Blithe wanderer in the chilly air,
Flitting and fluttering here and there,
Drifting above, below;
A cheerful life, though hard the fare,
The spirit of the snow.

Fair guest, now loitering near my door,
Whose latch locks not against the poor;
I'll scatter crumbs for thee;
For thou art welcome ever more
To share my loaf with me.

Why leave thy snug, warm nest to-day,
Its downy bed, and walls of clay
And welcome twitter sweet?
Why wander from thy home away,
Where falls the snow and sleet?

There are no berries on the tree,
No seeds unhusked, no buds for thee;
The piping storm is rude.
Come, share my hospitality,
And cheer my solitude.

The light of summer flecks thy wing;
A pleasant thought thy soft notes bring,
Sweet harbinger of peace.

Thy chirp suggests the coming spring,
Though Winter weaves his fleece.

Dear visitor hopping about;
Emblem of hope, unchilled by doubt,
A living link thou art
To all within, to all without,
To home and hearth and heart.

In realms above the star-lit wall,
Our Father watching over all,
To thee extends his care.
He notes the cheerful snow-bird's fall
In the unchartered air.

GEORGE W. BUNGAY.

FUTURE MEN AND WOMEN.—The boys and the girls are what the men and women will be by and by. The good sisters make the good wives, and the good brothers make the good husbands of the coming time. If you want to know with a fair certainty what each will be in the unalterable relation and

solemn responsibilities of married life, you can see it all mirrored in the life that as child and youth they lead. The affectionate kindness, considerate attention and unselfish devotion which made brother and sister dear to each other, and made the home calm and beautiful, will not have exhausted themselves when the old home is left, but on nearer and dearer ones will pour out their treasures of grace and goodness.—*Ex.*

“A good tree brings forth good fruit, an evil tree evil fruit.” A good tree is sound, clean, healthful, handsome. An evil tree is scraggy, loaded with vermin; having decayed or rotten limbs; hollow at the heart; scarred by hacking, by fire,

or by other evil influences—as men are scarred by fighting, fooling and by bad habits. Does he smell of beer, bourbon, or tobacco? He is like the evil tree, which brings forth evil, his breath is pestilential and blasts, or taints, all it touches.

Boys and girls, you are now growing—soon you will be clean, pure, handsome, healthy men and women; or you will become objects of pity or contempt, depending on how you live, and how you grow. You who can read must *know* what is wise and best, and what is unwise and bad. O, be wise and good!

S. R. WELLS.

EVOLUTION AND RELIGION.

THE doctrine of evolution as presented in the writings of Mr. Darwin, and expounded in the philosophy of Mr. Spencer, is not demonstrated or verified science. It does not explain all the facts presented in the phenomena of nature, life and mind; nor has it ever been verified by scientific experiment. This has not, and can not be done. No one pretends that man comes into being now by a process of evolution from the lower order of animals. This is certainly not the present method employed by nature in the production of man. If nature's order is permanent, and her methods uniform as science teaches, it follows that evolution was never the natural method.

But evolution proceeds upon the assumption that the effect may be greater than its producing cause; if it excludes God and evolves life, mind and morals from matter as Mr. Haeckel claims. This theory contradicts the law of causation, which is an axiom of science, and a necessary and universal postulate of the reason. Philosophy places it among the necessary laws of thought, and regards it as an intuition.

This theory of evolution must be given up, as it repudiates the fundamental basis of all philosophy and science, and

disregards one of the necessary laws of thought. You can not employ logic to prove a theory that rejects the fundamental axioms of all logical reasoning. This is what this theory of evolution practically does, and is therefore placed beyond the range of rational investigation. The theory of theistic evolution holds that God is the universal, self-existent, omnipresent, omnipotent, intelligent and beneficent cause of all things; while evolution is only a divine method. It is the way in which God works, the order which he observed in bringing worlds, plants, animals and man into existence. This is theistic evolution, and lays down a foundation for morals and religion.

This theory holds to God's existence as Creator, Providence, and Father; and to man's relation to him as his creature and child. Here we have the origin of these relations out of which all morals and religion spring. We can ground religious faith, hope, obligation, and worship upon this theory of evolution. It presents a basis for Christian character, life, and experience; for it recognizes God as the universal Father.

If all religion is the out-growth of man's religious nature, and our religious faculties, are the result of a process of

evolution, then religion has the same foundation in man's nature as all other institutions. If the doctrine of evolution is true, reason, conscience, the sense of justice, benevolence, the social nature and the domestic affections, as well as religion, all resulted from the same process of development.

Religious institutions therefore have the same basis in man's nature and wants as society, the family, the state, law, government, science and art. All these forms of human development are the results of evolution, and so is religion, according to this philosophy.

This being so, it follows if anything is true, religion is true; if any thing is divine, religion is divine.

Evolution proves that Christianity is the highest form of religion, because it is the latest distinctive form. It is the outcome, and therefore the better perfected flower and matured fruit of all previous religious life, growth, and effort. This is true or the doctrine of evolution is not true. It has grown out of the nature of the highest and noblest race of men, and has been developed along with the highest civilization.

WM. TUCKER, D. D.

A HUNDRED YEARS AGO.

AN observer who looks on life through a pair of glasses somewhat colored with humor thus alludes to certain differences of social habit, convenience and comfort between 1787 and 1887,

One hundred years ago wedding tours were not fashionable.

One hundred years ago the gin best known was not the cotton gin.

One hundred years ago farmers did not cut their legs off with mowing machines.

One hundred years ago horses which could trot a mile in 2-14 were somewhat scarce.

One hundred years ago there was no fast mail train between New York and Chicago.

One hundred years ago there were no disputers about the impoliteness of horse car-drivers.

One hundred years ago people did not enjoy the inestimable pleasure of growling over gas-bills.

One hundred years ago every young man was not an applicant for a position as clerk or book-keeper, although he often parted his hair in the middle.

One hundred years ago kerosene lamps did not explode and assist the kitchen girl in shuffling off her mortal coil.

One hundred years ago time and tide

waited for nobody, now nobody waits for either time or tide.

One hundred years ago "crooked" whisky was not known. Our forefathers took theirs "straight."

One hundred years ago men did not commit suicide by going up in balloons and coming down without them.

One hundred years ago there was no steam on the canals—even the driver on the tow-path didn't steam up in those days.

One hundred years ago a young woman did not lose caste by wetting her hands in dish-water or rubbing the skin off her knuckles on the wash-board.

One hundred years ago the physician who could not draw every disease from the system by tapping a large vein in the arm, was not much of a doctor.

One hundred years ago the producer could carry his surplus products to market on his horse.

One hundred years ago our fathers did not light their pipes with matches, but carried fire in their pockets in the shape of a piece of punk, a piece of steel and a flint.

One hundred years ago a public officer or other citizen could not steal enough to make the act respectable, and insure the actor a prominent position in the "first circles."

THE STATUS OF PHRENOLOGY.

Recently, while glancing over an encyclopædia in search of some biographical data relating to the illustrious George Combe, the writer was surprised to find that the author, while giving credit to our eminent apostle, and his broad researches in the field of mental inquiry, yet spoke of Phrenology as a subject whose star of popularity was gradually being obscured.

This, in my humble opinion, is a mistake, and a serious one. It is true the science does not now occupy popular attention in the conspicuous degree that it once did, some forty years ago, but the contrast, to its disciples, is a pleasing one. For, whereas, Phrenology then was advocated by many whose claims to knowledge were the basest pretensions, and whose efforts resulted in more evil than good, it now has able men to present it; and instead of being looked upon as a common diversion and amusement, it is viewed by men of brains and ability in the light of analysis and study, and is thus being placed upon a sure, sound foundation. The modern student must embrace the phrenological doctrines of to day, in all their symmetry; he can not afford to take to heart that conjectural system of "head-feeling" prevalent in the days of empirics and quacks. This, unfortunately is a great barrier to the progress of the science.

As a theme of private study, Phrenology is also becoming popular. During several year's attention to this subject the writer has frequently been surprised at the amount of knowledge exhibited by those who were usually reticent upon it. And, upon one occasion, when he essayed the lecturer's desk, the eager and respectful attention paid to his expounding of its principles and purposes, was an assurance that Phrenology has not "fallen into the innocuous desuetude" its opponents, and enemies would have us believe.

The clergy, also, to whom this god-

given science is of the most benefit, are not backward in acknowledging and claiming it. One of the most eloquent and talented ministers in the Wilmington M. E. Conference, the Rev. T. O. Ayers, (now holding an office of high trust and importance in that ecclesiastical body) is wont, in his sermons to make constant and practical reference to Phrenology; and, in fact, his ablest discourses all bear the impress of a thoughtful and studious mind, whose sphere of action has been widened and elevated through careful study of the science.

There is no need for despair to enter the breasts of the followers of Gall, of Spurzheim, and of Combe; for how can any impartial student not say with the learned Austrian physician, that "*This is truth, though at enmity with the philosophy of ages.*"

EDWARD THOMAS TUBBS.

PASSION FLOWERS.

Had she lain dead a year instead

Of this brief space we count by hours,
We might have placed a snowy wreath
To mark the spotlessness beneath;
But now, above her fallen head

We lay a cross of passion flowers.

God help, indeed, their earnest need

For whom no refuge city towers;
God give them strength in noble thought,
And lives with truth and honor fraught,
Then knowing whither sin must lead,

They need not find earth's passion flowers.

IONE KENT.

A GOOD WOMAN NEVER GROWS OLD
—Years may pass over her head, but if benevolence and virtue dwell in her heart she is as cheerful as when the spring of life opened to her view. When we look at a good woman we never think of her age; she looks as charming as when the rose of youth first bloomed on her cheek. That rose has not faded yet; it will never fade. Who does not respect and love such a woman? We repeat she can never grow old, and will always be an object of affection.



THE FACE IN DIAGNOSIS.

THE face, to the physiognomist, is a window to the brain, an avenue to the mind and character. The various mental states make marked impressions upon it through the nerves that are derived from the brain. The careful reader of character may thus learn where a man was born, how he was reared, upon what he has been fed, what his capabilities are, what his religious notions are, and almost learn his future destiny. There is an expression in the face and whole body that reveals the man.

What is true of the normal man, is also true of the diseased man. There is no lesion of the body without a corresponding disease of the nervous system, and I think there is no wrong of life that is not reflected upon the surface. What the reader of character is to the normal man the physician should be to the diseased man; he should possess the power to look beyond these outward signs to the seat of the morbid process; should become conversant with all the outward manifestations of disease; should know where the disease is located, its nature, extent, and probable result. The experienced physician relies greatly upon the facial expression of his patient in making his diagnosis and prognosis. How carefully he observes the face of his patient at each visit; how he reads out the general nature and

severity of the attack, and how many times one glance at the face of the sick tells the whole story; tells of pain, nausea, excitement, stupor, prostration and coming death. There are many fine shades of expression that must be classified and arranged before a conclusion can be reached, or a diagnosis made.

To acquire a knowledge of the facial characteristics the physician must be a close observer; he must be able to determine between the feigned and true expressions of disease; he must be familiar with the different casts of mind and cultivated expressions. The experience gained at the bed side is of more value to the observer than all rules or theories. There are many physicians who do not use their powers of observation; they become careless and lazy; let many golden opportunities pass where they could get valuable lessons, lessons that would prove profitable both to themselves and the sick. Many lesions so stamp themselves upon the face of the afflicted that he who can read these morbid signs will not mistake. Other lesions are obscure and can not be readily determined.

First, then, let us examine the general aspect of the face: Tuberculosis is often known by a delicate appearance, soft, tender skin and long eyelashes. Scrofula is known by the thick upper lip and

thickened alæ of the nose in childhood ; blue, soft, dingy looking appearance. The anæmic pallor is very important ; it is pasty in diseases of the kidneys, and waxy in chlorosis. A puffy appearance about the eyelids in a case of anæmia is suggestive of albuminuria.

A bloated, blotchy face and nose generally indicates irregular habits, high living and alcoholic drinks. Many diseases of the face greatly distort the features ; perhaps the most remarkable are erysipelas, facial paralysis, etc. A sunken face shows exhaustion, either from loss of sleep, great exertion, diarrhœa, indigestion, or hemorrhage. A wrinkled face generally denotes age. In children it is a sign of imperfect nutrition ; in half-grown lads it shows the effect of onanism or other bad habits. Sometimes a prematurely wrinkled face denotes inherited syphilis.

A staring, rigid, troubled, stupid, persistently smiling, or laughing countenance is found in cerebral affections. An anxious, restless, sad and despondent expression is found in heart and lung diseases. A woe-begone, long-faced, morose, apathetic, expressionless countenance is found in abdominal disorders.

The color of the face is often suggestive of special disorders :

The red face, if constant, denotes gouty and hemorrhoidal tendencies, and shows indulgence in stimulating food and too free use of alcoholic liquors. Red flushings in the face are often seen during the period of teething, menstruation and pneumonia. Redness coming and going in spots, is found in connection with cerebral disorders of children ; dark purple redness, congestion, apoplexy, and a deficiency of breathing power, or suffocation. Bright redness shows a tendency to hemorrhage, hysteria and nervous disorders.

The hectic flush, or circumscribed red spot on the cheek is characteristic of pneumonia and phthisis. Red cheeks with marked pallor about the mouth and nose show intestinal disorders, worms,

and often severe attacks of disease. Amenorrhœa, menorrhagia and chlorosis are frequently determined in the female by paleness and bloodlessness. Sudden pallor during pregnancy is a sign of hemorrhage, abortion or foetal death. Sudden pallor about the nose in scarlatina indicates cerebral complications, and during the period of desquamation, dropsy.

Cerebral concussion from a shock or fall is accompanied by a sudden pallor of the face. Paleness or bloodlessness of the lips is found in chlorosis and marked anæmia. Blueness of the face and lip is found in cardiac disorders ; in new-born children after tedious labors ; after strangulation or suffocation, and in some forms of lung disease. Cyanosis is a marked example ; here, however, the cause is congenital. Anything that prevents a free supply of oxygen to the blood will cause this symptom.

Yellowness of the face, or jaundice is found in connection with hepatic disorders. Brown patches or spots found upon the female face are generally signs of pregnancy, menstrual irregularities, hepatic diseases, or the effects of cosmetics. Ringworm is found in connection with some forms of kidney disease.

Inflammation or determination of blood to the brain is marked by a contracted or pinched expression about the orbits, a flushed face, bright eyes, contracted pupils, an expression of excitement. Cerebral congestion is marked by an expressionless face, dull eyes, dilated and immobile pupils, patient hebetate, and finally comatose. Cerebral softening is marked by a smooth, placid, expressionless countenance ; the facial tissues are soft and flabby, and seem to hang or sit upon the osseous structures like a badly fitting garment ; everything denotes loss of nerve power.

These symptoms are not infallible, yet they are suggestive. Much can be gained if all will be diligent in observing the face during attacks of disease.

W. F. CURRYER M. D.

ERYSIPELAS—ST. ANTHONY'S FIRE.

THIS disease is indicated by a peculiar inflammation of the skin, which gives the name, from two Greek words, meaning red skin. "The features common to all inflammation usually spoken of as erysipelatous," says Dr. Quain, "are fever usually preceding the local phenomena, and an inflammation tending to spread indefinitely by lymph spaces and lymphatic vessels of the affected part." The eruption is of an acrid fiery character, very troublesome, accompanied with elevations of the scurf skin that appear like blisters. It may appear on any part of the body, but usually attacks the skin of the face, especially the cheeks.

Three varieties of Erysipelas are usually described: (1) The Simple or skin affection (2) The Phlegmonous or Cellulo-Cutaneous, and (3) Cellular or Diffuse Cellulitis.

The *Simple* variety is that form of the disease most commonly met with, and is most frequently found affecting the face or scalp. The *Phlegmonous* or *Cellulo-Cutaneous* affects both the skin and the tissues beneath, while the *Cellular* is confined to the cellular tissue and not affecting the skin.

Causes.—Erysipelas is of zymotic origin, *i. e.*, due to poisonous germs existing in the atmosphere that have been absorbed and affect the blood; hence it is infectious, and with favorable conditions may be productive of an epidemic. When it occurs in a hospital it is likely to extend among the patients, especially attacking those debilitated by wounds or fever. Erysipelas is common in newly born children, but from the first to the twentieth year it is by no means common; after this period to the fortieth year it is frequent as an acute disease; but in more advanced age it occurs chiefly as a chronic and less important malady. It is often said that women suffer from it more frequently than men. Gouty people and high livers have been found to

suffer from it more frequently than others. So alcoholic liquors, errors in diet, and especially indigestible substances, such as shell-fish and smoked, dried, salted, canned, or otherwise preserved meats, are said to act as exciting causes. Violent mental emotions are also accused of being occasionally the cause, and it is known to have been brought on by both anger and fear. Sometimes no cause can be assigned for its onset, then we have the *idiopathic* type, but its occurrence is promoted by all circumstances that tend to debilitate the body, by intemperance, by previous disease, by low spirits and anxiety, by insufficient nourishment and by foul air. Formerly, when less attention was paid to cleanliness and ventilation, it was much more common in hospitals and infirmaries than at present. Injuries to the skin, such as abrasions, scratches, wounds, burns, or blisters, wherever they are situated, may be the starting point of the inflammation.

Symptoms.—Erysipelas is ushered in by feverishness, shivering, loss of appetite, nausea, headache, general mal-aise, pain in the limbs, quick pulse and coated tongue. The inflammation of the skin usually appears after these symptoms, but sometimes is noticeable before or simultaneously with them. The inflamed skin, in the simple variety, is a bright red color, sometimes having a tinge of yellow, the redness advancing in all directions. The outer margin is usually irregular but sharply defined, and somewhat elevated above the healthy tissue. In many cases there are small vesicles in the inflamed space, which tend to run together, forming blisters of considerable size which contain yellow serum.

After a course of six or more days the affection if mild begins to disappear, the rose tint changes to a deeper or venous hue, and gradually fades away leaving the skin of its natural color but thickened, which condition is soon modified by

desquamation or scaling off of the scurf skin. If the scalp were affected the hair falls off, and may not be replaced completely.

Phlegmonous erysipelas is a more severe form of the complaint, the symptoms of fever are more marked, and the color of the skin in the inflamed region is of a dark, dusky red, the swelling also being intense and accompanied with painful heat and burning in the part. In the course of a few days soft places appear indicating destruction or disorganization of the cellular tissue and sloughing of the parts.

In the form of *Diffuse Cellulitis* the cellular tissue beneath the skin and between the muscles is disorganized and thrown off in dirty looking shreds of dead matter and pus. This process of destruction may continue for a long time, until the patient is completely exhausted, sometimes leaving the skin only connected with the deeper tissues by tendinous shreds and blood vessels. Both this variety and the *Phlegmonous* are now comparatively rare and when they occur indicate a constitutional state that has become enfeebled by sickness, injuries or excesses. In all the varieties the thermometer indicates a rise of several degrees in temperature, from 102° to 107°.

It should be remembered that women in confinement are susceptible to erysipelatic attack, especially if puerperal fever is indicated, and the utmost cleanliness and precaution with regard to septic influences on the part of physician and nurse should be observed.

Treatment.—It is important to reduce the fever and pain. Tepid fomentations to the affected parts frequently changed are effective. Soft cloths should be used for the purpose. The head should be kept cool by water applications—while the feet are well protected against becoming at all cold. Let the stomach and bowels be regulated so that disturbances from that source shall not add to the local disorder. The diet

should be simple and nourishing, as in other cases of zymotic fever, while cleanliness of the room, bed-clothing, and person of the patient should be enforced; the clothing that comes in contact with the patient should be scalded before being much handled. If a wound exists, the part about it should be kept scrupulously clean and the wounded member placed in a comfortable position.

The various ointments, poultices, iodine, silver-nitrate, etc., are advised by some and condemned by other authorities; the tepid water applications, however, will be found most serviceable when promptly used. A few drops of opium tincture or of a solution of Hydrastis may be added to the water to allay itching, although in Simple erysipelas the water only will be sufficient.

Patients suffering from erysipelas should be isolated; for while ordinary cases are not likely to impart contagion to healthy persons, the occasional occurrence of an epidemic of the disease, and the susceptibility of some individuals to it, render this measure necessary. Only those having the care of a patient should be admitted to the sick-room, which should be dry, of moderate temperature, and well ventilated. H. S. D.

A SURE TRADE.—It is upon the certainty that, the appetite once fixed, it can never be broken, that those in the liquor-traffic build, and they have, in the very nature of the connection between the stomach and the mind, a very broad and wide corner-stone. They know that, with the liquor made in this day, all that is necessary for them to acquire a man's estate is to get the habit fixed upon him, and they know, just as well, that to keep their trade good all that is necessary, when a customer dies, is to fasten the appetite upon a fresh boy. They quite understand that the boy will graduate into a spendthrift, and, finally, a thief and a nuisance, and that they will get everything he can beg, borrow, and

steal, but they take him just the same. So much beer will run through him before he dies, and that beer he will manage somehow to pay for. He will not

pay his butcher, baker, or tailor, but he does manage to pay for his liquor and that is all the liquor-seller thinks of.

PETROLEUM V. NASBY.

POISONING BY FOOD.

IN a discussion of this topic by Dr. E. H. Bartley in the *N. Y. Medical Journal*, that writer points to the dangers that may lurk in one's food, especially that of the flesh sorts :

Every now and again we meet with cases where some food has caused severe illness in a number of persons, characterized by vomiting, diarrhoea, burning or colicky pain, great prostration of the vital powers, cold extremities, feeble, sometimes slow and sometimes rapid, pulse, and occasionally a scarlatina-like eruption, convulsions, or death. Occasionally, also, there is a metallic taste in the mouth, with partial paralysis of one or more of the extremities. In most cases the prominent symptoms are vomiting, colicky pain, prostration, and diarrhoea. In certain cases the cause of the sickness may be an indiscretion or a peculiar idiosyncrasy of the person, while in others it is in some change in the food eaten. Among the indiscretions often leading to such sickness we may mention those most likely to occur. First and foremost, my observation has shown over-eating of one dish to be a common cause of such attacks. For example, a servant-girl, when questioned in relation to her sickness from eating ice-cream, said : "I know it was the cream, for I ate nothing else for dinner. I ate all I could, and then went out for the afternoon." It was a very hot day and she got quite warm during the afternoon, was out in the sunshine a great deal, and returned home sick at evening. Who wonders at it ? In another case a child ate six to eight ounces of taffy-candy in a half-hour, and was made sick.

In other cases a meal has been made

upon a meat-pie, or, perhaps, a dish of chowder or salad, at eleven or twelve o'clock at night. A can of fruit or vegetables is bought for a meal, and little or nothing else eaten. A greened pickle is eaten, at bed-time, by a child of six or seven, and a doctor's bill, a suit for damages, or a funeral is the result.

The results are likely to be more severe if the dish is a very indigestible one, or if it is taken immediately before or after a period of great emotion, as of great joy, anger, or sorrow. I have met with such a case, where three members of one family ate an ordinary meal, consisting of bread and butter and cold, boiled-beef immediately before attending the funeral of a relative. After returning from the funeral they were all taken sick, and vomited the meal undigested. Others who had eaten of the same articles were not affected.

There are, however, cases of undoubted poisoning due to changes in the food eaten. Thus, cucumbers and melons, when not fresh, are apt to bring on diarrhoea and vomiting. Tomatoes, bananas, and many green fruits have a similar tendency. Commencing decomposition in animal and vegetable food is liable to develop poisonous principles. Meat which has been kept until it is tender or *high*, and fish that has become tainted are apt to produce symptoms of poisoning. The results of study and experiment have conclusively shown that proteid substances, while undergoing spontaneous putrefactive changes under the influence of certain low organisms, may develop alkaloidal poisons of the most virulent nature. The poisons formed by the decomposition of such

bodies as fibrin, albumen, gelatin, etc., vary with the decomposing body, the organisms causing the decomposition, the temperature, the conditions as to atmospheric contact, and the time which the decomposition has consumed. Some products of the decomposition of proteid bodies are innocuous, while others are more or less poisonous ; among the latter there are great variations of activity.

In view of the extraordinary activity of these alkaloids we can easily understand why tainted meat or fish may produce the violent attacks which we sometimes see. This may explain why some persons can not eat eggs without being poisoned by them. Chlorine is so easily developed from the lecithin which the yolk contains, that some peculiar condition of the digestion probably develops this poison.

In many cases thorough cooking, in my opinion, would prevent the food from doing any serious damage. In fact, I see no other explanation of the occurrence of so few cases of poisoning from tainted meats. There are many families who make a practice of allowing their meats to become slightly decomposed before cooking, and yet accidents are comparatively rare—a fact which seems to

show that cooking is a protection, and because it kills the organisms. In my experience but few cases of poisoning occur from recently and thoroughly cooked food. I have known whole families to be poisoned by a beef-stew, or by corned-beef which had been cooked for a number of days and then left in the same vessel. Meats protected from the free supply of air are more likely to become poisonous than those freely exposed. Meat-pies, imperfectly preserved canned foods, canned foods left in the can a few hours or over night after opening, meat-stews left in the pot or vessel in which they were cooked, are liable to cause poisonous symptoms.

It is probable that the organisms are more active when cultivated with a limited supply of air—a fact insisted upon by Pasteur in the case of certain pathogenic bacteria. Again, free exposure to air destroys some of the poisons by slow oxidation. All canned foods should be carefully examined before they are prepared for the table. A putrefactive or foreign odor, a decided change from the normal in color or taste, an appearance of decomposition, or an escape of gas on puncturing the can, should condemn them.

WOOLEN CLOTHING.

IN the last number of the *Sanitarian* the editor reviews scientific opinion on the properties of wool and its fitness for clothing. He says :

Wool has long since been demonstrated to be a bad conductor of heat and a powerful absorber of moisture. Almost a hundred years ago (Phil. Trans. 1792) Count Rumford showed that a thermometer wrapped with cotton wool, and heated by immersion in boiling water, took 1046 seconds to lose 135 degrees F. when plunged in a bath of melting ice ; while under the same circumstances when sheep's wool was employed, 1118 seconds elapsed before a like sinking of the ther-

mometer took place, thus showing the greater conducting power of cotton, and consequently the superiority of wool for maintaining warmth.

Pettenkofer, a few years ago (Zt. fur. Biol. band. i. p. 185). made a series of interesting experiments, demonstrating the hygroscopic power of wool compared with linen. He showed that linen not only absorbs much less water, but parts with it much more quickly. For example : Equal surfaces of linen and flannel being exposed to the air, after being placed in equal conditions of absorption, the linen lost in 75 minutes 5.933 grammes, and the flannel only 4.858 grammes of

water. Subsequently the evaporation from the linen lessened, as was to be expected, as it was becoming drier ; but that from the flannel continued to pass off moderately, showing the much more rapidly cooling effect of the linen.

The porosity of clothing—that is, the facility with which air passes through it, is also a point of much importance ; and this, too, shows the great advantage of flannel clothing. By an equal pressure equivalent to a column of water 4.5 centimetres high, an area of 1 centimetre diameter forced air through as follows : Through flannel, 10.41 litres ; lamb-skin, 6.07 ; linen, 6.03 ; wash-leather 5.37 ; silk fabric, 4.14 ; glove leather, .15. It thus appears that flannel, though the warmest fabric for clothing, is the most porous, and therefore the least liable to retain body odors.

The most important element is the extraordinary degree of absorptivity of flannel, and this property it is which, above all others, gives flannel its superiority over all other fabrics as an article of clothing. Perspiration, sensible or insensible, is at all times necessary to maintain the equable temperature of the body ; but during exercise, when perspiration is active and to such a degree as, when the exercise ceases, to chill the body without the interposition of such clothing as will maintain due warmth despite the evaporation from the surface, woolen clothing demonstrates its superiority. Exposed to perspiration the moisture penetrates the wool fibres, distends and lies between them, insomuch that the amount of water absorbed and held by hygroscopic absorption into and between the fibres may be more than equal to the weight of the wool. By absorbing the perspiration as fast as it is emitted, and, if unrestrained by impervious over-clothing, allowing it to pass off into the atmosphere almost as fast as it accumulates, insensibly, the skin is kept dry, and an equable temperature of the body maintained, not only during the process of active perspiration, but sub-

sequently, and by this means chill is prevented. On the other hand, if active exercise be taken in linen or cotton shirts, and perspiration be induced as in the former case, the moisture, instead of being absorbed and allowed to pass off into the atmosphere, clings to and saturates the texture, which sticks to the skin, clogs the pores, and, on leaving off exercise, so rapidly cools the surface by the loss of heat as to induce chill and disease. Moreover, flannel acts as a gentle stimulus to the skin, and thereby exercises a highly beneficial influence in removing the scurf, keeping the pores open and clean, and promoting its healthy action. These differences make it plain why woolen clothing is alike superior to other material in both cold and hot weather—it meets and modifies the effects of the variable conditions of exercise and temperature. Flannels are now manufactured in all degrees of thickness and weight, and can therefore be chosen with special reference to climate or occasion. The objections raised against the use of flannel are for the most part founded on ignorance of its advantages, prejudice, obstinacy, and bravado, which it is the object of this notice to correct. The disadvantage of flannel is due to the way in which it is ordinarily washed. By the use of boiling water, excess of soap, rubbing and wringing, the fibre becomes smaller, harder, and less absorbent. To prevent such results flannels should be *dipped* only in *warm*—never hot—soap-suds and surged about for a few moments, and then rinsed in two or three warm waters till the soap, with the dirt, is entirely removed ; and then, *without any rubbing or wringing whatever*, hung up to dry



THE CONTAGION OF CONSUMPTION.—It is now pretty well established that the poison of pulmonary consumption may be communicated like that of the ordinary diseases.

Lawson Tait, F.R.C.S., of Birming-

ham, England, reports an interesting case: "About three years ago there came to me a pretty, flaxen-haired, blue-eyed girl of about eighteen, whose face alone it was enough to look at to designate pulmonary consumption. She told me her mother had died of it, and so had one brother. As is the wont of woman in affliction, she brought a friend with her to help her through the ordeal of a visit, a perfect contrast to herself, tall, stout and strong, the very picture of health, a handsome Irish brunette, born near Sligo. The two worked together at one of our Yorkshire wool mills, and it would seem as if the strong contrast there was between them had caused their close friendship. They lodged together, and until their visit to me had slept together. As is my custom, I at once insisted on the patient having a room to herself, and, after my injunction, this rule was strictly carried out. I need not detail the case of the first girl. Suffice it is to say that she passed through several attacks of softening, during each of which she was attended carefully, but not closely, by her friend, and after these attacks she recovered completely,

married, and is now the mother of two children. Her devoted friend had a different and a sadder fate; for, only five weeks after her first visit to me in the capacity of companion to my patient, she herself came with the dyspeptic symptoms which usher in the first stage of phthisis. During the time she was nursing her friend, the physical signs of incipient consumption were manifested, and, despite all my endeavors, it ran an almost unchecked course in less than three months. * * The former, whose fate I had regarded as decided, recovered; the latter, who really sacrificed herself for her friend, died. * * Her father, mother and several brothers and sisters were all alive and strong. She had a grandfather and two grandmothers alive, and no instance had occurred in the family of death from chest disease or any of the usually allied affections, nor in her own case was there any point which could be indicated as a likely explanation for the phthisis. The whole evidence, negative certainly, but none the less valuable on that account, pointed to the conclusion that it was a case of phthisis derived from contagion."

A RECEIPT FOR COLD FEIPT.

For nothing at all we will give a receipt
For pleasantly warming in winter your feipt.

First see that the shoes or the boots you
may wear

Are polished each morning with scrupulous
cear.

This reason is founded on science, you
know,

And will, if it's followed, relieve you of
wow.

Don't purchase a tight-fitting boot or a shoe,
But get a size larger or, better, get toe.

Be sure they are stout ones and perfectly
whole,

Made low in the heel, thick and broad in the
wssole.

Then oiling them, go without rubbers,
which sweat,

And make your feet tender through coldness
and weat.

Some folks cotton stockings prefer, but they
should

Wear socks made of woolen as those are
more gould.

For feet, like your face which in winter is
bare,

Grow tough when exposed to the frost in
the are

No chilblains will itch you or give you an
ache

If, when it is bed-time, iced water you'll
tache

And plunge your feet in it—then rub 'em
with might
Until they grow scarlet and—probably
wight.

Now toast 'em awhile by the grate, and, I
guess
You'll find this receipt for cold feipt a
succuess.

N. B.

Some husbands, who think they're as sharp
as a knife

Will warm their cold feet on a poor, sleepy
kwife.

That's cold-blooded murder for which
women wise

Should get a divorce from such martial tise.

JENNIE KERR.

RELATIONS OF SANITARY SCIENCE TO THE PROFESSION.*

WHILE the success of this science depends mainly upon physicians, there is a wide difference in the interest which they take in it, as well as the sacrifices which they are willing to make for it. Let us inquire who, and how many, of our physicians have been actively engaged in this reformatory work? The number, compared with the whole profession, is not large—in fact, is very small. Those engaged in this work are widely scattered both in city and country, and are generally active with the pen and tongue, so that they seem more numerous than they really are. There are, it is true, great numbers in the medical profession who are kindly disposed to sanitary reform, and speak highly of it in their practice, but, at the same time, are unwilling to make much sacrifice to advance its interest.

Unlike many other reforms and good works, there is a direct antagonism between the interests of this profession and sanitation. The support of this profession depends mainly on the *cure of disease*, not its prevention. Every step in this reform diminishes more or less professional income. There is no trade or speculation in this reform. When a person has spent years in study, and made large investments to secure a livelihood, how can we expect he will sacrifice these interests? There is probably

no class of men, engaged in professional or other kinds of business, to whom appeals of so complex and antagonistic a character are made for services. The success depends much upon the education and the moral training of parties. On the one side stands out the highest welfare of the individual and society in respect to health, while on the other side the physician is tempted to make his own interests paramount to all others.

Let us for a moment consider his position. In choosing this profession, the pecuniary considerations were undoubtedly most powerful; and, then, in his early preparations and through his whole course of study, compensation for professional services has been constantly kept in mind. The whole drift of medical study, and teaching by sickness or from books, has express reference to the treatment and cure of disease, not, as we may say, its prevention. Add to this the most implicit faith that all classes generally have in drugs, together with the crowded state of the profession, it will be seen that the physician is virtually constrained to have an eye constantly on his business. It is true that in medical studies, lectures and books, a great deal is said about the charitable aspects of the profession, and that it is always expected to give a large amount of service to the poor.

It is just to state here that the claims of the sick poor have been most liberally responded to by physicians, and that no other profession or class of men do

* From a paper by Dr. Nathan Allen, read at the meeting of the American Health Association, at Toronto, Oct. 5, 1885.

so much for the poor as the medical profession. But this work of charity has its equivalents ;—it secures to the physician a stronger hold in the affection and confidence of the people, and, in different ways tends to increase his business. But to engage actively in means to prevent disease, not simply in one instance, but in case of great numbers, this is very different—it cuts off directly the support of the physician. Such action is based upon a love of humanity—of philanthropy—a higher range of motive than that of giving services to the sick poor. It appeals to the very highest class of motives—not simply to save expense and relieve suffering, or improve health and prolong life, but to elevate mankind and increase, physically, mentally and morally, the sum of human happiness. Such are the legitimate fruits of sanitary science.

Considering the powerful pecuniary interests of the profession, and the disinterested motives requisite to engage in sanitation-work, it is rather surprising that so many members of the profession have from time to time engaged heartily in advancing sanitary science. The main object must have been the promotion of health, the diffusion of useful knowledge, and the enlightenment of mankind generally in respect to the laws of health and life. In some few instances it might have been prompted by pecuniary considerations—the individual holding some official position, or seeking one. But these are exceptional cases. Our state and municipal authorities have made such small appropriations for public health that the salaries offered to medical men are not numerous or large enough to be very attractive. In this respect Great Britain is far ahead of us. The promotion of the public health has become there a part of her government machinery. The whole kingdom is divided into some fifteen hundred districts, over each of which a medical officer of health

is appointed, with salary graded according to the services rendered.

Besides this provision, and showing the interest of the government in sanitary matters, there are over one thousand inspectors of nuisance appointed, in charge of as many districts. This inspection proves of great advantage, not only directly in preventing disease, but by dispersing information among the people they become helpers in the work. The medical appointments in Great Britain are made on the ground of special training and qualifications for this kind of work, and the same persons are continued in office for years. Thus there is a wide difference between the interest in sanitary science in Great Britain and in the United States. In the former the science receives a powerful support from the government, and a large amount of means is annually distributed among its advocates. Besides, there is on the part of the people more general intelligence on the subject—a higher appreciation of the benefits of the science, and a more ready disposition to co-operate in carrying on the reform. Though the science has been making advances in these respects in the United States, there is much room for improvement. Our national government is not doing what it ought for public health ; neither are the state or municipal authorities making the appropriations for it which they should.

Most of the contributions to sanitary science here have been voluntary. This reform has been carried forward by men heartily interested in the work—very few seeking or expecting any remuneration. The reward for such services does not consist in dollars and cents, nor in the plaudits of the multitude, but in “the consciousness of duty done and noble deeds performed.” A distinguished medical writer lately made this remark : “The most important work that sanitarians are doing at the present day is sowing seed which in time will yield abundant harvest.” And

never in the history of medicine was there such a combination of circumstances so favorable to improvement in the practice of medicine. Never before has there been such earnest inquiry made on the part of the profession to ascertain the true causes of disease. It has been found in the moral world, that in order

to eradicate great evils, their primary causes must be first removed. So in the prevention of disease, the same course must be taken. This accords with the teachings of sanitary science. Leading members of the medical profession have here been doing noble work that must have excellent results.

A DANGEROUS DRUG.

WITH the hope of influencing your medical readers not to interfere with nature's processes, except where there are plain indications for so doing, I would call their attention to a paper on the administration of ergot in labor prepared by Dr. Goodman, of Louisville, Ky., and read at the meeting of the American Gynæcological Society, at Baltimore in September, 1886. The paper took ground in opposition to the general custom, which seems to have prevailed throughout the country for some years past, of giving ergot in cases of labor at the beginning of or after the third stage; and claimed that the theory of its action was false, and that its effects, instead of being beneficial, were injurious. While there were distinguished physicians present who disagreed with the author of the paper, and spoke rather in defence of ergot, yet they advised its use with more reservation than formerly, and much of what was said in its favor referred to the use of the drug on special occasions, and did not pertain properly to the subject under discussion, namely, the evil arising from its indiscriminate administration. Dr. Reamy, President of the Society, said that ergot, in creating tonic contraction of the unstripped muscular fibres of the uterus produced a form of contraction different from what existed in the normal state after labor, interfered with the natural circulation in the organ, and thus tended to produce an effect opposite to what was sought by its administration, namely, prevention of hemorrhage, blood poisoning, and

subinvolution. He went so far as to say that he was convinced that the administration of ergot in labor was doing more harm for women than any other one thing.

These are significant statements, coming from the source they do, and will go far, it is hoped, toward teaching the presuming man, who has acquired a little book-learning and obtained the title of M. D., that to interfere in all cases of any natural process will surely result in harm rather than in good. One of the evil effects of the administration of ergot toward the end of the second stage of a natural labor, not mentioned in the discussion, is that, by the unnatural contraction which the drug produces it hastily expels the placenta, perhaps leaving a portion of it behind, and disabling the womb, because of exhaustion after its unnatural state of contraction, from expelling such remains together with blood clots, and thus setting up septicæmia. Even should its administration be delayed until after the expulsion of the placenta a portion of that organ might remain undetected by the experienced practitioner, and the drug having the effect of producing such unnatural uterine contractions would cause the retention rather than the expulsion of the foreign body. Such a case we have seen; and when one's wife, and the mother of his children has thus been affected and snatched only from the brink of death, he can speak feelingly against meddling with natural processes.

R.

HEALTH PAPERS—NO. 1.

PEOPLE are sick — here — there — every where. Few, if any, enjoy uninterrupted good health. Meet a friend and ask “How is your health?—Is your family well?” “Very well, thank you,” is the conventional reply. Spend an hour in conversation and you listen to a sad story of aches and pains. Is your friend well?—Is his family well?

A lady, robust in appearance, came before the faculty of a popular sanitarium for professional examination. She wanted it clearly understood that she was not sick. Indeed, she was in perfect health. She always had been so. But for a few years past—and now especially for the last winter—she had been troubled with rheumatism. At times she was hardly able to get about. This, however, did not affect her general health, which, as she said at first, was “perfectly good.” Further inquiry revealed the fact that she was suffering from serious derangement of the digestive organs, of the organs of secretion and excretion, of the circulatory and of the nervous systems. Indeed she was quite an invalid and needed thorough reconstruction. If this was an extreme case the world is full of similar ones, in kind if not in degree. Disease is the rule. Health is the rare exception. Almost one hundred thousand physicians and a great army of nostrum makers and venders, apothecaries and chemists live, and many of them grow rich, in our own land, by the medication of the sick. Much the same state of things may be found in all civilized lands.

Many eminent men in the profession, witnessing the unsatisfactory results of their work, have been constrained to admit that their faith in drugs has steadily declined from the beginning. Not a few have been driven to the abandonment of their use entirely. Yet the masses cling with desperation to the drugs. Few ever stop to inquire into the correctness or incorrectness of the

theory of curing disease by the aid of disease-producing agencies. The boastful assumption that it is sustained by the experience of many centuries is supposed to be a triumphant vindication of it.

Why is it so? Wrong premises lead to wrong conclusions. A correct practice is never based on a false and irrational theory. An untrustworthy philosophy of health and disease can not be a basis for safe and reliable methods of treating the sick. And just here a very prevalent popular error rests. Consider for a moment. Health is normal. Disease is abnormal. Health is the harmonious play of all the organs of the physical, all the faculties of the intellectual, all the emotions of the spiritual elements of our delicate and wonderfully complicated triple nature. Disease is the inharmonious play of the same organs, faculties and emotions, or of any part of them. These harmonious or inharmonious manifestations are not spontaneous or causeless. They are definitely related to, and always dependent upon, known or unknown causes. It is the province of the true physician to trace out these causes, to study their indications and to guide the patient to health by removing all disturbing influences, if within his power, and by supplying the conditions essential to this end. These things being faithfully attended to nothing more is needed but to wait for results. Vital force—that mysterious life principle breathed into man at his creation—is the only agency that can carry on vital action in health or disease. If all things are favorable it will restore the equilibrium of the organic functions without the intervention of factitious agencies or appliances. It may be relied upon to do, without jar or discord, what the most potent drugs in the hands of any physician, however skilful he may be, can never do.

J. S. GALLOWAY, M. D.

NOTES IN SCIENCE AND INDUSTRY.

Electricity as a Light and Motor.—The recent passage of the yacht *Volta*, propelled by electricity, from Dover to Calais and back has awakened a great deal of discussion and remark about the practical success of electricity as a lighting or propelling agent. Exactly why this voyage should have caused so much excitement we do not know, because already many electric launches are in use, and quite a number of railways are run by electric motors. The sole object of the *Volta's* voyage was to test the practicability of storage batteries as a source of power on a long water trip. In this particular the experiment was a success. But, so far as we know the electric motor has not for ships or cars, by which we mean heavy work, gone in any business meaning much beyond the toy period, that is, the motor will move cars and ships in an experimental way, but not in a commercial sense. The same difficulty seems to be found here as in the Ericsson hot-air motor. That motor proved in every respect admirable where small power was needed, as in printing offices and the like, but when Ericsson put it into his sea-going vessel of large size it was not a business success. So also in lighting we do think the public has not become really convinced that the electric light is cheaper or better than gas. It is commonly remarked that the combustion of coal to run an electric light dynamo is more costly than the burning of coal to produce illuminating gas. Besides, it is an obvious fact that the electrical burner and its connecting wires have not got beyond the crudest and most unsightly forms.—*Exchange*.

What Poor Land May be Made to Do.—An exchange relates: Some years since a prominent gentleman purchased a little farm at Atlanta, Ga. It was very poor, but he established a herd of Jerseys and carried on the dairy business, practicing soil-ing, using lucerne, orchard grass, prickly comfrey and oats. At the end of five years a committee was appointed to visit the farm and report on the crops by the Commissioner of Agriculture of Georgia. This was accordingly done and a report made, from which are gathered the following facts:

First, a plot of orchard grass was visited and the grass cut from 100 square feet of

surface of average quality and the produce weighed 96 pounds, or at the rate of 41,817 pounds per acre. After being thoroughly dried the weight was 21 pounds; 9147.6 pounds per acre—4.57 tons. Next a plot of oats was visited. These were sown in drills 18 inches apart, and from 451 square feet 313 pounds, or 30,204 pounds per acre, in the green state, were cut. On being dried the weight was 101 pounds, or 9746.5 pounds—4.87 tons—per acre. In a field of lucerne, which was a little over-ripe, from 300 square feet was cut 95 pounds, or 13,794 per acre. When dried this weighed 30 pounds, or 4356 pounds—2.17 tons—per acre.

The committee found that the average of green crops would be 14 tons per acre, or 8.87 tons of dry fodder. When it is considered that at the start the land was very poor and had been in use only about five years, this shows what can be done in the way of increased productiveness. It is probable that very few farms average even two tons of dry forage per acre of the surface cut over. The gentleman referred to has no patience with the talk of a poor country, exhausted soil, etc. He says: "The fault is not with the soil. The earth is more generous than man. Let the agricultural interest lift up its head. Let farmers take pride in this, the noblest of pursuits, instead of regarding it as inferior to other vocations, and our prosperity will be boundless."

Furniture Polish.—Melt three or four pieces of sandarac, each of the size of a walnut, add one pint of boiled oil, and boil together one hour. While cooling, add one drachm of Venice turpentine, and if too thick, a little oil of turpentine also. Apply this all over the furniture, and, after some hours, rub it off; rub the furniture often, without applying fresh varnish, except about once in two months. The *Scientific-American*, which gives us this formula, says water does not injure this polish, and any stain or scratch may be again covered, which can not be done with French polish.

A Japanese Way of Advertising Books.—A bookseller in Tokio, Japan, says the *Evening Post*, desiring to sell his wares, thus advertised them in the newspapers: "The advantages of our establish-

ment—1, prices cheap as a lottery; 2, books elegant as a singing girl; 3, print clear as crystal; 4, paper tough as elephant's hide; 5, customers treated as politely as by the rival steamship companies; 6, articles as plentiful as in a library; 7, goods dispatched as expeditiously as a cannon ball; 8, parcels done up with as much care as that bestowed on her husband by a loving wife; 9, all defects, such as dissipation and idleness, will be cured in young people paying us frequent visits, and they will become solid men; 10, the other advantages we offer are too many for language to express."

Afloat in a Crater.—Captain C. E. Dutton, of the U. S. Geological Survey, has been recently engaged in making a study of Crater Lake, in Oregon, and the latest advices received from him show that he has discovered, probably, the deepest body of fresh water in the country. Leaving Ashland, Oregon, on the 7th of July, his party, escorted by ten soldiers, provided through the courtesy of the General, commanding the military department of the Columbia, reached the brink of the wall of the lake on the 13th, having brought with them boats so mounted on the running gear of wagons as to bear transportation over a hundred miles of mountain road without injury. The boats bore the transportation without strain or damage, and preparations were at once begun for lowering them 900 feet to the water. The steepness of the wall was very great, being at the place selected about 41 degrees, or 42 degrees, and the descent partly over talus covered above with snow, and rocky, broken ledges lower down. The boats entered the water quite unharmed. The process of sheathing them, rigging the tackle, and lowering them occupied four days. A couple of days were occupied in making journeys around the walls of the lake by boat—the only possible way—and in examining the rocks and structures of the wall in its various parts. Next followed a series of soundings. The depth of the lake considerably exceeded the captain's anticipations, though the absence of anything like a talus near the water line already indicated deep water around the entire shore. The depths range from 853 feet to 1,996 feet, so far as the soundings show, and it is quite possible and probable that depths both greater and shallower may be found. The average depth is about 1,940

feet. The descent from the water's edge is precipitous; at 400 or 500 yards from shore, depths of 1,500 to 1,800 feet are found all around the margin. The greatest depths will probably exceed 2,000 feet, for it is not probable that the lowest point has been touched. The soundings already made indicate it as being the deepest body of fresh water in the country.—*Science*.

The Academy of Anthropology.

—At the December meeting of this institution an account of an authentic wolf-man was presented by the secretary from correspondence that he had, personally, with a missionary in Northern India. This wolf-man had been captured while running in the jungle on all-fours and living as a wild animal. The paper of the evening was presented by Dr. Crothers, of Hartford, Connecticut, and was a description of the phenomena of inebriety in relation to insanity, clearly defining the tendency of the habitual use of alcoholics toward permanent mental disorder. "No man," said the lecturer, "can use intoxicating liquors in excess or occasionally without their affecting his intellect. The difference between the heavy drinker and the moderate is only one of degree; you notice in both, defects of memory, and increasing difficulty in recollecting dates and events. A drinking man will often forget entirely what he is doing at certain times, and act like a man in a trance state. I have known an instance of a drinking conductor who collected tickets while in this condition, and afterward did not know anything about it. Another class of men will do what they had thought of before they got into the trance state. There are recorded instances of men going to Europe and finding themselves in Liverpool before they realized what they had done. Many while in this condition of partial insanity will purchase things that they are unable to pay for, and so run into debt. One wealthy individual, whom I know, gave \$50,000 to a missionary cause without at all knowing what he was doing. Another class, and by far the most dangerous of all, consists of those who commit the worst crimes while in a state of inebriety. The power to judge between good and evil at this time seems to be entirely obliterated from their minds, and they run riot in murder and bloodshed.

They suffer from a palsy of the moral forces, and are therefore during the time maniacs of the worst kind. The fast habits and nerve-destroying conditions of our modern civilization are constantly forcing men and women into the borderland of insanity, and it will never be otherwise until men realize that the brain and the nerves are the most sensitive parts of the body, and can not be abused, and that this world is controlled by laws of cause and effect, and that they can not use alcohol without suffering for it."

In the course of the exercise Dr. L. M. Halbrook delivered a graceful address to the recently appointed professors of the Academy, Drs. E. P. Thwing, H. S. Drayton, and Professor N. Sizer, investing them with the Academic gown. Dr. Edson, of Brooklyn, commented in an interesting manner on the paper of the evening, and illustrated the tendencies of the forcing methods of modern education in enfeebling the nerve organism of the young.

Dancing Cranes.—A writer to the *Chicago Advance* thus describes a unique incident: The last time I went hunting I witnessed a scene which I had often heard of but never seen. It was the dance of the sand-hill crane. My companion was a well-known hunter, and though he is a physician finds much time—he lives in Northern Iowa—to study the ways and haunts of wild fowl. "Now," said he, "I will show you within an hour the famous dance of the sand-hill cranes." We swept over the prairie in a way which I shall never forget; the two ponies seeming to enjoy the out-door sport. At last we came in sight of a crowd whose noise had saluted our ears for an hour. They were on a slope which came down near to a lake. All at once two stepped out from the crowd, faced each other, and began clapping their wings, jumping up and down as Indians do for a war-dance. All this time they were uttering cries which boys would understand very soon to be cries of merriment. Their companions greeted them with shouts of seeming laughter, and the one jumping highest and longest was acknowledged champion of the day. When these two became exhausted, two others went through the same performance. We watched them for about an hour.

Late Railroad Statistics.—The total mileage of the World is 290,000 miles.

Ten out of every million people carried in Europe are killed or injured, and 41 out of the same number in the United States.

The train that makes the fastest time in the world is known as the "Flying Dutchman." It runs from London to Bristol, 118 $\frac{1}{4}$ miles, without a stop in two hours; an average of 59 $\frac{1}{8}$ miles per hour. The train between Paddington and Swindon ranks second, running 77 miles at the rate of 53 $\frac{1}{4}$ miles per hour. One train in Germany, that between Berlin and Hanover, averages 51 miles an hour for a distance of 152 miles.

One train on the Canada and Pacific, from Cotaneau to Ottawa, averages 50 miles for a short run of 78 miles.

On the Pennsylvania road the fastest time in the United States is made by the "Limited," in its run from Jersey City to Philadelphia, 90 miles, which it makes in a little less than 2 hours, an average of 48 3-10 miles per hour.

The fast train from Boston to Providence makes the run of 44 miles without stop in just 1 hour.

The "Limited," from New York to Chicago for 25 hours averages 36 $\frac{1}{2}$ miles.

For every 100 miles of railroad in the United States there are about twenty-five miles of double track, sidings, etc., 19 locomotives, 621 freight cars, 5 baggage and mail, and 13 passenger cars.

The total number of passengers transported in 1885, by railways in the United States, was 312,686,641.

Considering that each person was transported an average distance of 23 miles, the entire movement upon all the railroads was equivalent to 8,541,309,674 persons moved one mile.

In the matter of passenger transportation Massachusetts takes the lead with 53,900,887; Pennsylvania comes next, then New York, Illinois, New Jersey and Ohio.

In tonnage of freight transported during the same time, Pennsylvania leads with 105,507,916 tons, which is a little more than one-fourth the total tonnage moved in the United States. New York follows, after which comes Ohio, Illinois, New Jersey and Indiana.

The total tonnage moved in the United States, was 400,453,439.

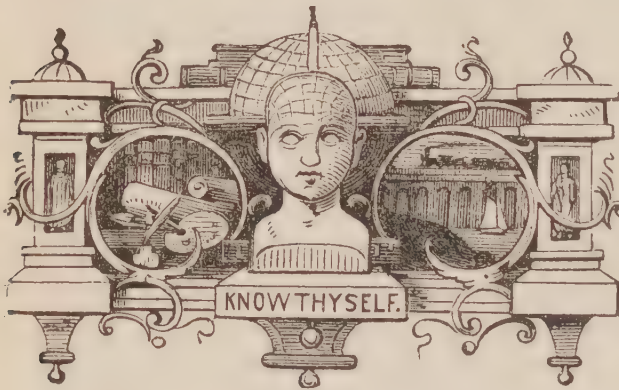
Inhabitants of Other Worlds.

—The *Popular Science News* presents in a late issue an article bearing on this subject,

in which it sets forth one reason why such bodies as the moon, Jupiter and Saturn could not be inhabited by beings of the same physical constitution as mankind, even supposing that other conditions governing existence there should be favorable, which is not the case. The argument in question depends on the action of gravitation at the surface of these several bodies. Thus, at the moon's surface, the force of attraction being very much less than at the earth's surface, a being constituted like man, and endowed with the same muscular energy, could leap to astonishing distances, clearing for example a three-story brick house with the same ease that he would clear a post and rail fence on the earth; the elephant would become as light-footed as the deer; a stone thrown from the hand of a thoughtless boy might fall in an adjoining county before accomplishing its mission of des-

truction; armies could engage each other in battle at great distances apart; and all kinds of labor would be greatly lightened by reason of the diminished weight of tools and materials.

While this state of things might not render human life, endowed as we have it on earth, impossible on the moon, the opposite state of things which would prevail on Jupiter and Saturn would certainly render life, in reality, a burden. The masses of Jupiter and Saturn being so much greater than that of the earth, the correspondingly greater attractions, which they would exert, would so impede locomotion that unless endowed with enormously greater muscular power than he is gifted with on the earth, man would only be able to crawl along as though his feet were weighted with lead, while the larger animals in all probability would be crushed by their own weight.



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1887.

ALL hail to the New Year. For our subscribers, and well wishes, for all who love the good and would have the world advance in knowledge of the true and in hostility to the false, for the unhappy and unfortunate, for all mankind, indeed, we wish abundant happiness and prosperity in the year now opening. Let us, friends, resolve to look less at our feet and more at the stars.

CULTURE AND HAPPINESS.

WE CAN not persuade ourselves that culture has the effect of rendering a person discontented with life and unhappy, although many writers of high reputation have put forth such a doctrine. It is sad to reflect on the bitterness that characterizes the thought of Schopenhauer, who asserts that the more cultured a man is the more sensitive he becomes to physical discomfort or mental excitement. In other words, he is a mere delicate machine and easily jarred and deranged by the disturbing conditions that surround him. The late allusion of Ruskin to himself would appear to confirm the cynical German. He wrote a few months ago in this vein: "Life is really too disgustingly short; one has only got one's materials together by the time one can no more use them. But let me say, once for all, in closing this fragment of work old and new, that I beg my friends very earnestly never to mind paragraphs about me in the public papers. My illnesses, so-called, are only

brought on by vexation or worry (for which said friends are often themselves in no small degree answerable), and leave me, after a few weeks of wandering thoughts, much the same as I was before, only a little sadder and wiser!—probably, if I am spared till I am 70, I shall be as sad and wise as I ever wish to be, and will try to keep so to the end.” We regard such language as indicative of an unbalanced nervous condition rather than the expression of the cultured mind that the world recognizes in John Ruskin. It is the expression of a weak and broken body, that no longer sustains the bold, aspiring spirit of the great art critic. It is the reluctant acknowledgement of declining power, and a protest against the ordinance of nature with respect to human function. Of Schopenhauer, whose life in youth and age was a course of irregularity and eccentricity, it is but reasonable to say that his pessimistic views are the natural outcome of the confused and inharmonious experiences that were his. Morose, arbitrary and irritable in disposition he could not be taken as an example of even, harmonious, mental development—but would be pointed to rather by the moralist as an example of the psychological effects to be expected in one who has disregarded the laws of his nature on both the physical and mental side.

Our understanding of culture is that gradual, systematic evolution of the selfhood that preserves the balance of the mental and physical organisms, enlarges the faculties of the mind, renders the vision clearer with regard to the nature of our relation with the world, gives us a better command of our powers and a

better adaptation to the circumstances that belong to our sphere of action. Culture in our meaning is an expansion of the capabilities of thinking and acting, a higher appreciation of the beautiful and true in nature and human life, a deeper understanding of the sympathies and reciprocities that exist among men, a larger grasp of the purpose of human aspiration and effort, as evidenced in civilization, and greater capacity to enjoy what is good and pure in the character and work of society and individuals.

That is not culture that produces but a one-sided habit of looking at things, and neglects the development of the body; such training may be expected to increase one's sensibility to the irregular and uncomfortable, and render him irritable, gloomy and peevish, but the harmonious growth of true culture enables one to bear the trials and inflictions of his sphere with calmness, and to discern a hundred pleasant compensations within his reach for the ills he must suffer.

DENTISTRY AND MEDICINE WITH CERTAIN PERSONAL ALLUSIONS.

THE leading dentists of the country are discussing with much warmth a proposition lately made to them to form a section of the International Medical Congress that will meet in Washington next September. Several of these gentlemen are opposed to it on the ground that dentistry is a profession by itself, and to associate with the doctors of medicine, in the manner proposed, would be to acknowledge their art but a branch of the medical profession. Among those who urge this view is Dr. Norman W. Kingsley, whose prominence in his calling is

evident from the fact that he is President of the Dental Society of the State of New York.

According to a report lately published in the *Tribune*, Dr. Kingsley stated at a meeting of dentists that their vocation was not to be regarded as a specialty of medicine, and derived no character or dignity that was particularly desirable from such an idea. It was a profession, for one reason, because it was a vocation of beneficence, and also because its mastery as a science or art involved a considerable knowledge of many other sciences, and its resources in an equal degree were nearly all the arts. In the daily practice of dentistry could be found anatomists, physiologists, pathologists, histologists, biologists, microscopists, chemists, botanists, geologists and metallurgists. Dentistry was not a mechanical trade, because the dentist was not the servile imitator of a pattern, but he was constantly called upon to apply established principles to entirely new conditions; his judgment and inventive faculties must be in active exercise. Yet that which removed it farther than all else combined from medicine was its mechanical methods; its corner-stone and foundation were mechanics applied by a knowledge of the various sciences; yet it required natural faculties and acquirements entirely distinct from those in the practice of medicine.

As an indication of what dentistry embraced Dr. Kingsley said, that if all the workers in woods, metals and clays; moulders, porcelain workers and decorators, painters and sculptors "were suddenly and simultaneously destroyed, those arts would not be lost; for in the

ranks of the dentists could be found experts in every one of them; and if in the same grand catastrophe all the scientists of certain classes were cut off, the same sciences could be fully taught by dentists." He was not in favor of the idea that dental students should study medicine first; he would have dental schools wholly distinct from medicine, and have dentists study medicine, if they wished, after they had become dentists.

This pronouncement by Dr. Kingsley coming to us through the columns of a newspaper is suggestive of an incident that occurred within ten years, and in which the author of "Forty Years in Phrenology" figured not inconspicuously. At page 291 of the book named, a paragraph headed "Dentistry and Sculpture," thus recounts: "A few years ago I received a card of invitation to be present at the special exhibition of a marble bust of an important character at the house of the artist in New York. I had no knowledge that I had ever seen the artist, and as I had another engagement for the evening I concluded to go before eight o'clock, the time specified. I was admitted to the parlor and gave my name, and in a few moments the artist came rushing in, with this welcome: 'Mr. S——, you are the very man I most hoped to see here to-night.' He then went on to say that when he first visited New York, being a bashful boy of eighteen, he found himself aimlessly looking at the busts in the front windows of the Phrenological rooms of Fowler & Wells. He came in, and finally decided to have an examination written out which made a large hole in his slender means. 'I wanted to know.' said

he, 'what I could best follow, and you told me I would succeed as a dentist and also as a sculptor. I never had thought of pursuing either. After I left the office I stood a few moments on the crowded thoroughfare, and resolved then and there that I would learn dentistry. I looked up a place, learned the business, have succeeded; and when I had acquired property so that I could spare the time, I took up sculpture, and here is some of my work.' He then turned up the light and showed me a grand head of the best character in human history. 'I owe it all to you,' said he, 'I had no idea of studying dentistry or art, and might have followed the plow or entered upon some other muscular pursuit. I accepted your unexpected advice, and having had my life elevated and broadened, I am satisfied, happy and thankful.'"

What Dr. Kingsley said in the remarks we have drawn from the newspaper report, with regard to the reproduction of the plastic arts by "experts in the ranks of the dentists," is not without a positive basis, as the reader must be convinced from the testimony just quoted; and that that testimony has a sufficiently close personal relation to Dr. Kingsley himself to warrant its appearance in connection with what he so firmly holds, with reference to the respectability of the dental profession.

CHESTER A. ARTHUR.

ANOTHER is added to the long list of our dead Presidents. Arthur soon followed Grant, and he was not long in following the murdered Gafield. Of Chester A. Arthur it must be said that he

proved not unworthy of the great trust that so unexpectedly fell upon his shoulders. Given the place of Vice-President on the Republican ticket more as a matter of political expediency, because of his recognized influence with a powerful wing of the party, than because it was generally believed that he would be competent to meet the responsibilities of the Chief Executive, should the office fall to him, nevertheless in the hour of trial, an extraordinary crisis of civil demand and of popular sentiment, he showed most noble qualities of manhood and the capabilities demanded of a President. Perhaps among the men whom circumstances have elevated from the Vice-Presidency to the Presidency of the United States, not one exhibited higher capacity and was more successful. The profound sorrow and distrust that the shocking death of Mr. Garfield awakened throughout the country was relieved to an extent that is scarcely realized to-day by the courage and spirit with which Mr. Arthur administered the affairs of the Nation. He was an adroit politician, a very skilful and faithful partisan, mingling with high and low in the furtherance of his objects, but once the heavy mantle of duty fell upon him he rose to a full appreciation of its dignity and claims. Our people owe him more respect and honor than was awarded him in life.

As to his death, it was premature. Endowed with a splendid physical organization he should have lived thirty years longer, but his habits were not conducive to the maintenance of health. It is well-known that he was a good liver. Blessed with fortune he entertained in splendid style, had a very large circle of friends

and sought to meet the demands of society as a loyal member. Always the courteous gentleman, he nevertheless trespassed upon the laws of his nature through irregularity in the times and character of his eating and drinking and in the times of his brain labor, and finally reaped the bitter fruit of such trespasses, becoming a broken-down and dying man. Sad is the truth; yet it should be

told. He was no drunkard, no glutton, but immoderate and irregular in the observance of hygienic proprieties, probably thinking all the time that his great natural strength could endure the strain. We respect the man for his services to the nation. We regret his early death, and feel it our duty to point to it as another warning for many of our public men to heed.

Our Mentorship Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or

what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

PIMPLES.—C. E. S.—You say that you are "a very hearty eater," and this accounts in great part for the skin annoyance of which you complain. Eat to satisfy the wants of the body, but avoid anything like gluttony. Select good food and put aside articles that will disturb or retard digestion. Greasy, oily substances, an excess of sugar or butter, and coffee or tea have a tendency to interfere with the action of the stomach and intestines, and clog the blood with matter that can not be disposed of readily by the excretory apparatus. Keep the skin clean, too, by frequent bathing.

MORBID IMPULSES. — *Question*,—What is the cause of a person having a feeling as though they had to jump or throw themselves down, while standing near the edge of the wall of a high building, or place forty or fifty feet above the ground? *Answer*.—This feeling is due, we think, to a sudden confusion of mind produced by the new situation in which one finds himself, when brought to survey the prospect from a lofty elevation. It is a change in relation to one's surroundings that seems at first to set experience at fault, and the faculties of perception, therefore, are at first disturbed and out of co-ordination.

Size, Weight, Locality, etc., in many persons may require time to adjust themselves to the new conditions. Men who are accustomed to work at great elevations, roofers, painters, etc., do not as a rule suffer from such morbid sensations, because their faculties have become educated to the relations of altitude. What do our readers think of this matter?

"A STRANGE ADVENTURE."—*Question.*—I beg to ask the editor if the articles in the August and September numbers of the JOURNAL, 1886, bearing the above title are intended to represent the method and results of magnetic treatment of nervous disease. How much of fact, and how much of fiction is employed as a frame to the beautiful picture? N.

Answer.—The articles illustrate certain possibilities of the magnetic or as it is now called the "hypnotic" treatment, and to those who are familiar with the later developments of hypnotism the statements of the writer will not be considered romantic. The reports of recent investigations, notably those of Dr. Charcot and his associates in Paris, remind one of the old tales of Oriental magic. Our correspondent seems inclined to step behind the "green curtain" of the Mental Chamber, and we shall be frank enough to let him into some of the secret workings by saying that the author of "A Strange Adventure," did exercise an imagination somewhat fertile in arranging the attractive drapery of her pictures, but the hypnotised subject lives for the time in a sphere that is created by the imagination or suggestion of the operator.

WANTS TO BE AN ACTRESS.—I. L.—We advise you to exercise your elocutionary talent in other spheres than on the stage. You can make it useful in readings and recitations that may bring you profit and applause, and save yourself from the doubts, suspicions, anxieties and exposures to which every woman who attempts the theatrical stage must submit herself. That well-known actress, Mme. Janauschek, thus says to girls who ask her help: "I have been thirty-three years on the stage, and I say there is no life like it. It has no happiness. It leaves you no time for domestic or social pleasures, no time for anything but work,

work, work. I was once a good pianist, but for years I have hardly touched a piano. I love to draw, but there is no time, ever. All is work and travel, travel and work. To girls who think of going on the stage, again I say, no, no." Charlotte Cushman used stronger language of warning, when she was asked her opinion. Look at the women who pose as "stars," and are so much advertised! Are they as a class to be envied by any well-bred young woman?

CHANGES OF FORM.—J. B. D.—Yes, the head does change in absolute shape through the activity of certain organs of the brain. You have but to study a single case attentively, and you will perceive some alteration in the course of time, and the change will be found to bear upon the special employment of the person. A man pursuing a vocation that requires thought and close study, will show increased development in the superior region of the forehead. A mechanic, working assiduously at his trade, will show in the course of years an increased breadth in the lateral parts. This subject is considered in the books on mental science, and the physiological process explained as fully as clearness demands.

LEMONS AS MEDICINE.—F. J. M.—The acid properties of lemons give them an astringent effect which is favorable toward overcoming congestion in the secretory apparatus of digestion. Further, the citric acid, unless it is neutralized by an excess of sugar, is useful in overcoming an excessive alkalinity that is producing derangements of function in the assimilating organs, and consequently interfering with the blood circulation. Lemonade, because of its acidity, exercises a cooling influence in febrile states and promotes nervous calm and sleep. In "bilious" troubles, the plethora following over-eating, lemonade is beneficial. For one with what is called bilious fever a diet of brown-bread and lemonade is refreshing and restorative.

SKIN DISEASE.—G. D. D.—We think from your brief description that the trouble is a form of dry tetter. Should require a full statement of your temperament, habits, food, and daily life to understand the causes of the disease, and to advise with respect to its treatment.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

The Future of Jerusalem.—Educate. Educate is the imperative duty of those who have anything worth teaching. Asia presents openings in every direction for instructors. In the matter of correct living there is such a lack of knowledge here that one wonders where the teachers are to be found. If this city, for instance, had its masters of drill in health tactics, could the people during these late summer months live such dead-and-alive lives as they do? Fever on every hand. Hospitals not a few. One dispensary giving 40,000 prescriptions in a year and another almost as many. Our appeal is for sanitariums built on the hills near the city, as they can be in these days of progress.

For such institutions those who would come here to open them, would find almost everything needed at hand. Durable white stone not discoloring with time, is usually quarried in abundance out of the lot upon which the building is to stand. A great excavation for the cistern must be made, and so the necessity for blasting out rock will furnish the needed stone for the house. Wheat, grapes, figs, olives, honey and all that your sanitarium table needs is furnished here at the low prices of abundance.

Before I first visited here, in 1882, I learned of a young American who spent only eighteen dollars during a six months residence, or travel, in the land. Arabic bread, eggs, and fruit being cheap a very small sum for living is needed. If one must earn his money here the cheap rates of subsistence make wages proportionally low. Money is lavished by travellers and wealthy Jews, and others send "piles" of money for the restorations now going on so briskly. Jerusalem has been sacked *twenty-seven* times in well-known history, and many of us believe that the city now extending over the west and north tablelands is destined to become the capital of the world. This is not so chimerical as one may at first think.

It is already within easy reach of Port Said, a point which may become a disbursing centre for all countries. Suppose, for

any reason, London should lose its mercantile prestige its trade might be diverted to the shores of the eastern Mediterranean and Persian Gulf. It is quite possible for a city of forty, fifty or sixty miles square to spring up at this focus of the world's trade-routes.

Many entertain that expectation, and I confess that I see nothing against it. You try a little engineer's office-work and see what a plan of central economic commerce your compass, pencil and paper would yield. Babylon, Nineveh and other great cities once flourished in this region,

Jerusalem, Oct. 15, 1886. CROSSETT.

Is Woman the Weaker Sex.—

A lady correspondent in a letter addressed to me said: "I affirm that women are the 'weaker sex' only physically." This is a subject upon which I may be allowed to offer some remarks that may not be unprofitable to the reader. How does the capacity of woman compare with that of man? Has she exactly the same psychological development as man? If not, what are her mental characteristics? Is she the weaker sex? If so, in what sense and to what extent? In regard to these, together with other related questions of importance, the public mind is filled with not a little fog and error. Perhaps a few propositions, together with some general observations, may be suggestive to the reader. First I would say that: Man and woman have appointed unto each a special sphere in which to work. Hence it is obvious that the answer to the general question, Which is the weaker sex? is found by answering a second query—Which fulfills their mission the more completely? There are physical differences between the sexes; men are stronger in muscle; women quicker in muscular movement; men have bold, prominent features; women delicate, clear cut and beautiful features.

Physiology and Psychology are inter-dependent. This furnishes us at least three inferences.

1. As there are physical differences, so there are mental differences between the two sexes.

2. Men can be distinguished by certain mental abilities or characteristics which are distinctly masculine and which are beyond the power of women to possess.

3. Women can be distinguished by cer-

tain mental abilities which men do not possess.

Social, educational and industrial privileges are now granted to women as never before, and she is having an equal chance with man to develop her tastes and unfold her capacities, and it has already been shown that she is the equal of man in many lines of work, which before, it was supposed, she was unfit to engage in.

Woman possesses the intuitive type of intellect. The power to reach truth at a single bound by a sort of inspiration, without following logical processes is characteristic of her mind. I think she has also a better appreciation of the beautiful and sublime in nature and art. She is more apt in reading human nature than man. Of some other qualities of mind such as the power to distinguish and appreciate color; the love of system and order; the desire for approbation; the love of offspring, together with caution, imitation, and respect for authority, she is the possessor in a higher degree than man.

In conclusion it will appear that the question of woman's relative strength or weakness does not depend upon whether she can rival a Webster at the forum or a blacksmith at his anvil, but whether she is the more efficient worker in her allotted sphere. If man is the stronger in some respects, woman is also the stronger in other respects.

STANWIX

From a Seminarian.—In a pleasant letter written by a student of Drew Theological Seminary, Madison N. J., to one of our assistants he says:

"I seize this opportunity of sending to you my sincere thanks, and my brethren all join heartily in their expressions of thankfulness for the delightful and much prized privilege they have of reading the "Phrenological" as they term it.

I believe that if Phrenology were made a part of our common school system that one half the troubles of life arising from the pursuit of vocations unsuited to person would be avoided. Phrenology ranks today among the sciences that have added strength and power to the Manhood of the Nineteenth Century.

REV. E. F. F.

In mentioning the December number of this magazine the weekly *Truth* of New York, says: THE PHRENOLOGICAL JOURNAL

AND SCIENCE OF HEALTH continues to improve. Its latest issue is exceptionally good, and any one of its articles on hygiene if read and acted upon would be worth more than the price of subscription.

PERSONAL.

MISS GRACE H. DODGE, daughter of Mr. William E. Dodge, and Mrs. Mary Nash Agnew, wife of Dr. Cornelius R. Agnew, have been appointed members of the New York Board of Education. These ladies are in every respect qualified for the important duties of the position. For years they have been known for the energy and sagacity of their efforts in educating girls and women, according to improved methods of remunerative work. This, fellow-women, means progress.

COUNT TOLSTOI, the Russian novelist, was found by a recent visitor clad in peasant's garb and sweeping his hearth. His shirt was soiled with mud and soot, there was a strap about his waist, and his heavy boots were coated with clay. After breakfast the count and his son went to help repair a neighbor's barn, and worked all day at it. This rough and ready character shows pride and independence.

SAMUEL MORLEY, the well known English philanthropist, died in London on the 4th of November last. He was at the time of his death President of the United Kingdom Band of Hope and also of the London Temperance Hospital. He was, too, a member of the General Council of the London auxiliary of the United Kingdom Alliance, and, as a member of Parliament, he supported Sir Wilfrid Lawson's Permissive Prohibitory bill. A man of large wealth he was in many ways a public benefactor. One of the noblest men of his day and generation, whose loss will be severely felt in all circles of reform.

RUTHERFORD B. HAYES is the only surviving ex-President. There seems to be a strange fatality connected with the office of the chief Executive. During the last quarter century ten Presidents or ex-Presidents have died. Van Buren and Tyler in 1862, Lincoln in 1865, Buchanan in 1868, Pierce in 1869, Fillmore in 1874, Johnson in 1875, Garfield in 1881, Grant in 1885, and Arthur in 1886. Is the life of a President in office too exhaustive? They say Mr. Cleveland is becoming stouter.

WISDOM.

“Think truly, and thy thought
Shall be a fruitful seed.”

How small a misfortune will obscure a world of prosperity.

Be brief ; for it is with words as with sunbeams, the more they are condensed the deeper they burn.

Strangers are generally too indifferent to both your vices and virtues to spend much time in determining your character.

“Of more worth is one honest man in society, and in the sight of God, than all the crowned ruffians that ever lived.”

Economy wisely directed is not only not stingy or mean, but the thing that makes benevolence and generosity possible.

Nothing is more silly than the habit some people have in, ‘speaking their minds.’ A man of this trait will say a rude thing for the mere pleasure of saying it.

The true Christian is like the sun, which pursues its noiseless track, and everywhere leaves the effect of its beams in a blessing upon the world.—*Luther*.

As they, who for every slight infirmity take physic to repair their health, do rather impair it ; so they, who for every trifle are eager to vindicate their character, do rather weaken it,—*Mason*.

“No one can measure grief except by actual experience. One never forgets the bitterness of gall, having once tasted it ; but not having done so, laughs at the wry faces of those who would fain forget.—*Elmore*.

MIRTH.

“A little nonsense now and then,
Is relished by the wisest men.”

Why do we always talk about putting on a coat and vest ? Who puts on a coat before the vest ? We also say shoes and stockings. What’s the matter with us, anyhow ?

“Sir,” said a teacher in his parting address to a distinguished student, “your fellow students think highly of you, the tutors and professors think highly of you ; but no

one thinks more highly of you than you do of yourself.”

Gentleman—on plank crossing stream :
“Well, either you or I must turn back.”
Pat—“Och, you turn and I will folly yez. Divil a bit will I turn me back to sich a foine gentleman.”

Shopping in the country.—Clerk : “No, ma’am : those are two articles we don’t keep ; but the oysters, I think, you will find at the post-office, and bananas you can get across the way, at the barber’s.”

“Gentlemen,” he said, by way of introduction, when he rose to make his maiden effort, “what have we before the ’ouse to-night ?” “I think we have ‘h’ before the ’ouse, gentlemen,” was the prompt reply of a witty but rude member of the opposition.

“I suppose you have had many prominent men for patients,” said a gentleman to a dentist. “Oh, yes ; and I have found that their tongues, in most cases, resembled their teeth.” “In what respect ?” “Because they have been stopped by gold.”

Expectant heir of rich uncle—“That doctor we had to attend Uncle John is no good.” “Why ?” “He cured the old man and did me out of a fortune. Have to stick to dry-goods for some time to come. He’s no good.”



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

HISTORY OF WOMAN SUFFRAGE. Edited by Elizabeth Cady Stanton. Susan B. Anthony, and Matilda Joselyn Gage. Vol III. 8vo : Cloth. pp. 1013.

This portly volume completes the series of a work begun several years ago under circumstances not the most favorable by the

hopeful and intrepid trio of editors named in the title page. The design was to prepare a work that would give to the reading world a fair view of the woman-suffrage movement from its inception by a few courageous souls who believed in the equality and dignity of womanhood with manhood, and asserted the injustice of manhood in withholding the civil rights and privileges belonging to that equality.

The parts taken by the friends of woman's advancement, in the different states of the Union, are recorded with much fullness, and the proceedings, of annual and other conventions, especially those held in Washington are reviewed for the purpose of showing the character and spirit of the claims of women to representation in the ordering of society and the administration of government.

The extent of this "History" as a literary venture involved a large expenditure of time and money, yet in their earnestness for the cause that has been so many years identified with the names of Susan B. Anthony and Elizabeth Cady Stanton, the editors have given unreservedly. "This has been to us a work of love," they say, and we can believe it. Each of the volumes is embellished with portraits on steel, this one having Phoebe W. Couzins, Frances E. Willard, Lillie Devereux Blake, Elizabeth B. Harbert, Helen M. Gougar, Mentia Taylor and several others of the more prominent advocates of woman's rights. One who reads this volume will find that in Europe there are numbers of courageous women who urge their claims to recognition as important factors in social life, and whose strength is growing year by year.

ONE HUNDRED FAMOUS AMERICANS. By HELEN AINSLIE SMITH, author of "Great Cities of the Modern World," etc. Small quarto: pp. 556. Cloth, price \$1.50. New York: George Routledge & Sons.

The purpose, as averred by the writer, in writing this neat volume, was to present a series of brief and interesting sketches of the great men and women of America; describing their lives in connection with the history and growth of their country, and pointing out the influence they, in their different spheres and manners, have exerted upon our American life. The list is large enough to form a considerable volume, but many names of worth are necessarily omit-

ted, although those given relate mainly to the past forty years, and comprise inventors, statesmen, orators, lawyers, military and naval officers, pioneers, reformers, clergymen, physicians, surgeons, teachers, historians, poets, journalists, artists and merchants. Many excellent portraits add value to the printed pages.

THE BEECHER BOOK OF DAYS is the latest of its class of publications, and fitly represents one of the most eminent men in the American pulpit. Its editors, Eleanor Kirk and Caroline B. Lerow, are a sufficient guaranty of the taste and care with which the selections have been made from the rich and extensive field of Mr. Beecher's utterances and pennings. Besides the illustration of each day, with appropriate gleanings from star-paper, sermon, or lecture, we are reminded of the lives of eminent men of the past and present, by their names and natal years, that are distributed through the book. A well-executed engraving in wood forms the frontispiece.

Messrs. Cassell & Company, New York, are the publishers.

SUSAN'S SHEAVES, AND OTHER STORIES. By MRS. C. M. LIVINGSTON. 12mo. pp. 364. Price, \$1.25. New York: National Temperance Society.

A right-pleasant book for young folks. The stories are well told, and by no means exaggerations of the truth, while their lessons are left to the incident in the development of the plots. Charity, the services of Christian love, given by faithful, earnest hearts, whether throbbing under the cheap jacket of a working-woman or the velvet of a lady of wealth and position, inspire the sketches. There are a half-dozen or more of these sketches besides "Susan's Sheaves," and the interest of the reader awakened by that is not likely to flag in reading the others.

PUBLICATIONS RECEIVED.

ELEPHANT PIPES and Inscribed Tablets in the Museum of Academy of Natural Sciences, Davenport, Iowa, by Charles E. Putnam, Pres. A full examination of the origin and nature of these relics of ancient American people—and their relation to geological periods.

THE NATIONAL TEMPERANCE ALMANAC, and Teetotaler's Year-Book for 1887. A convenient and useful reminder of the passage

of time, and of reformatory duty for the people. pp. 72. Price, 10 cents. J. N. Stearns, Agt., New York.

THE AMERICAN BOOKSELLER'S Christmas number is a work of art, setting forth the publications of its numerous patrons in all the beauty of elaborate engraving and elegant type. Books, and publishers' materials specially appropriate for the holidays, constitute the bulk of its ample list. N. R. Monachesi, New York.

THE WORLD TRAVEL GAZETTE, late number, contains very enticing descriptions of West Indian and Mid-American scenery and life, with extended lists of excursions, rates and facilities for tropical and Southern tours. New York.

BESIDES the "Beecher Book of Days" that has been mentioned already, Messrs. Cassell & Company have issued a Beecher Calendar, compiled by the same editors. The backing of the calendar is a large card in which a finely colored portrait of Mr. Beecher is conspicuous, and below views of his first church, and the so well known "Plymouth," and also delightful sketches of his birth-place, and present country home. The whole affair is a very graceful production.

THE COLUMBIA BICYCLE CALENDAR FOR 1887, issued by the Pope Manufacturing Co., of Boston, is an artistic miniature-encyclopædia on this popular modern steed. The calendar proper is mounted upon a back of heavy board, upon which is an allegorical scene representing an adventurous modern knight of the wheel "cycling" the globe. A smaller picture shows a lady tricyclist, speeding along over a pleasant country road.

CURRENT EXCHANGES RECEIVED.

The Current Miscellany. Weekly. Chicago.

The People's Health Journal. Drs. Rogers, editors. Chicago.

Farm, Field and Stockman: Harvard & Wilson Pub. Co., New York.

Harper's Bazar. Weekly. Holiday numbers, taking. New York.

The Manifesto. Organ of the United Societies of the Shakers. Shaker Village, N. H.

The Manufacturer and Builder—and Quarrying Journal. Monthly. H. N. Black, New York.

Mind in Nature. Popular discussions of Psychological phenomena. Monthly. Chicago.

Cincinnati Medical News, and Sanitary News. J. A. Thacker, A. M., M. D., editor. Cincinnati, Ohio.

The National Temperance Advocate. A monthly digest of Temperance movements. New York.

The Medical Advocate. Medicine, Surgery, and kindred science. Drs. House and Wilder, editors. New York.

The Churchman, old representative of the Protestant Episcopal Church. M. H. Mallory & Co., New York.

Science and Education. A new weekly that begins well; its summary of current developments in scientific research is well prepared. N. D. C. Hodges, New York.

The Eclectic Magazine of Foreign Literature, for December, has edifying studies of the Labor question, Falling in Love, Coleridge, The Bulgarian Situation, The Higher Education of Woman, etc. New York.

Lippincott's Monthly for December is bright and varied, having among its contributors Mrs. F. N. Burnett, John Habberton, E. P. Roe, Junius H. Browne, F. G. Carpenter. No more serial stories, the publishers announce. A good step. Phila.

The Popular Science Monthly in the December issue has discussions of Science and Theology, Geology of the Atlantic Ocean, Life in the South Sea Islands, How to Warm our Houses, Measuring the Earth's Surface, a Sketch of the eminent savant Arago, and many other topics. D. Appleton & Co., New York.

Harper's Magazine for December is a very attractive number of the veteran periodical, and has several nice things commemorating Christmas. Although in lighter vein somewhat than customary, the topics are appropriate for holiday times, and the illustrations rich. Gen. Lew Wallace contributes "The Boyhood of Christ," Mr. Howell a farce entitled "The Mousetrap," Mr. Stoddard "The Legend of Frey Bernardo." Harper & Brothers. New York.

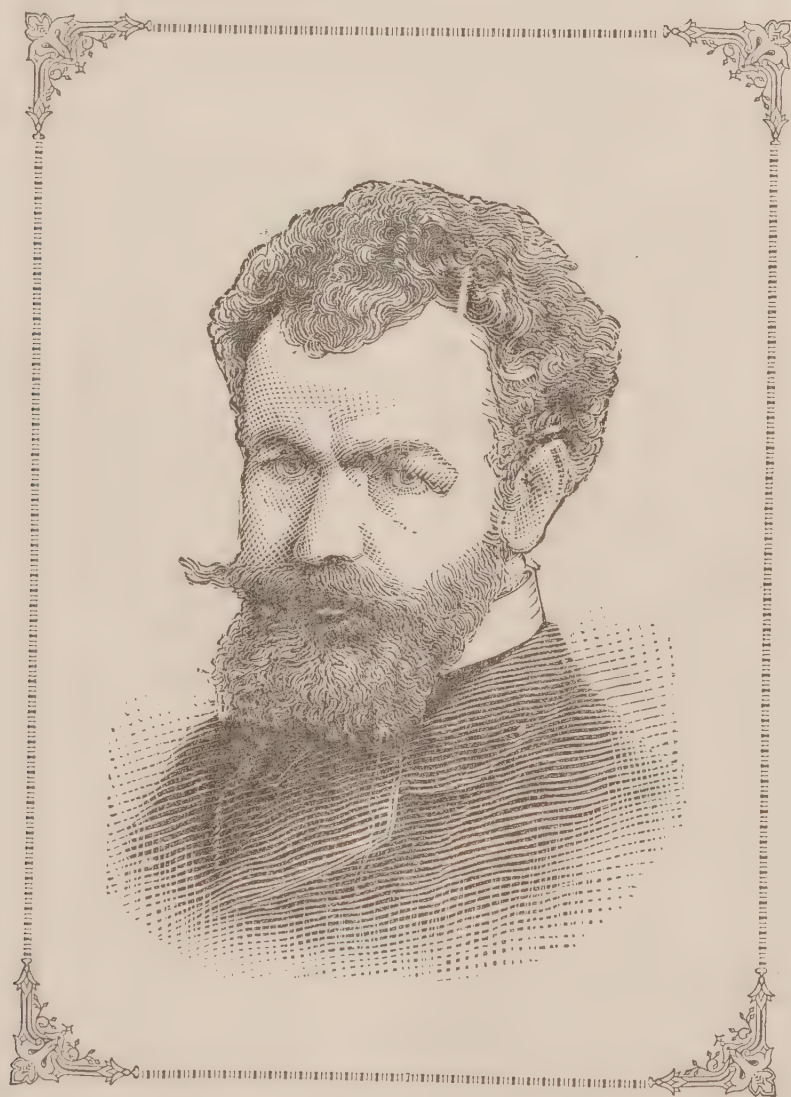
Century Magazine for December is conspicuously American. The sketches of Henry Clay and his Ashland home, Abraham Lincoln as Soldier, Lawyer and Politician, The second day's battles at Gettysburg, and other "memoranda" of the Civil War, forming more than half of the contents. These are very fully illustrated, and so are "Contemporary French Sculptors," "Old Chelsea," and "A Little Millerite."

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MICHAEL MUNCKACSY, THE EMINENT HUNGARIAN ARTIST.

THERE is at this time on exhibition in New York a picture that has attracted much interest since its first appearance in Paris, in 1881. This picture, known by the title of "Christ before Pilate," is a work of pre-eminent artistic skill and aside from its impressive name contains features, in the arrangement of

its numerous figures, the contrast of facial expression and the variety of coloring, that could not fail to command attention in any community. The painter, Michael Munkacsy, had won high reputation for artistic capabilities years before he attempted so ambitious a work as the representation of Jesus in one of the last and most thrilling scenes of his wonderful life. It was, we are told, in 1869 that Munkacsy won his place among the great painters of Europe by the production of "The Last Day of a Condemned Man," now owned by a lady of Philadelphia.

Turning to the portrait of M. Munkacsy we see that his face and head are striking at first glance, because of their unusual character. The photograph from which our likeness is taken indicates remarkable fineness of quality as well as strength and intensity of organization. There is an expression which belongs to the brave soldier, the factor of earnest effort, as if he could meet and master opposition, conquer difficulty, and bravely go through opposition which most men of his weight and strength would incline to recoil from. All the features are strong, well-set, and compact, expressing determination, resolution, clearness of purpose, and efficiency of effort. The eye is steady and piercing, and indicates a definite certainty of perception; looks into and through; seems to take in at a glance every fact and peculiarity of an object. His large perceptive organs show ability to be critical, definite, precise.

We see in that forehead order, mathematical exactness, judgment of places, colors, facts, and also the power to grasp a whole subject, to take into consideration its details and particulars. In connection with this he is a critic, close and penetrating, especially of human character and disposition. He has also large Constructiveness, which gives power of combination, and the faculty of treating his central or foreground

figures strongly, and at the same time employing accessories in such a way as to enhance the effect of the main object of a picture.

His knowledge of human character will lead him to depict the nicer shades of expression. His pictures ought to be alive and not a dead, cold form. He would have been a fine dramatist, and might have taken rank on the stage, as high as he has taken elsewhere.

His head seems to be broad above and about the ears, indicating force, policy, power, economy, prudence, courage, and the whole attitude and manner indicate ambition, determination, integrity, thoroughness and aspiration. If the hair were laid more smoothly to the head a more elaborate analysis could be made from the likeness.

Michael Munkacsy was born at Munkacs, a small town in Austro-Hungary pleasantly situated at the foot of the Carpathian Mountains, on October 10, 1844, and was left an orphan when scarcely three years old. His father, an official in the royal Treasury, had, at the outbreak of the great revolution in 1848, joined the rebels, and during the suffering and trials of the ensuing war he and his wife died. Five children were left to the tender care of relatives, and Michael fell to the share of an uncle, who, reduced by the sad condition of the country, was compelled to apprentice the boy, at an early age, with a carpenter. At the end of six long years, during which a great yearning for art had awakened in the growing lad, he shook off the disagreeable yoke, and left his master's workshop to enter a portrait painter's studio at Gyula, where he received his first instruction in drawing. A year later he went to Pesth, and having made a scanty living by painting small *genre* scenes and portraits, contrived under great privations to save enough to take him to Vienna, where he hoped to find a master in the ingenious Rahl; but the latter was hopelessly ill,

and soon after died. But a few months of study there and he proceeded to Munich, where he frequented the Academy, and rapidly developed his extraordinary talent. He won three prizes at competitions given out by the Hungarian government, and at last found himself supplied with the means to go to Dusseldorf, where he was especially attracted by the repute of Ludwig Knaus.

At Dusseldorf Munkacsy produced "The Last Day of a Condemned Man," which was exhibited by the purchaser in the Paris Salon of 1870, and won a medal.

The scene depicted in it is based upon a custom in the artist's native country; three days before the execution of a prisoner, his friends and the public in general are admitted to visit him. The characteristic details of expression, for which this dramatic subject offers ample occasion, are brought out with masterly effect; the prisoner, seated at a table, on which the crucifix is placed between two candles, seems overwhelmed with the burden of his thoughts; the woman beside him, weeping, leans against the wall. Among the curious lookers-on are little children standing on tiptoe to catch a glimpse of the prisoner across the table, while the impassability of the sentry forms a vigorous contrast with the expressions of curiosity or sympathy painted on the faces of the group. The individualization is most successful, and the coloring of great depth.

It is gratifying to know that the genius of the painter, which this work displays, was first appreciated by an American, then a wealthy Pittsburg merchant, whose intelligent faith in the yet unknown master led him to pay in advance for a work which would not have been otherwise attempted, and which received a prompt indorsement from the Paris Salon, as well as from that experienced art dealer, M. Goupil, who hastened to Dusseldorf with an offer of thrice the sum that had been paid for the picture.

Soon after the great success of the powerful work just described he finished "The Wounded Soldier's Tale," which, in some respects, is even superior to its predecessor, and increased the fame of the young master, who, at the end of 1871, was appointed professor at the art-school in Weimar. A sojourn in Paris, in 1872, for the purpose of finishing a picture ordered from him, caused him to make that city his permanent residence. Since then he has scored triumph after triumph, won a second-class medal in 1874, the medal of honor in 1878, the Legion of Honor in 1877, and was made an officer of the same order in 1878; the Academy of Munich elected him a member in 1881.

While the subjects of his paintings hitherto had chiefly been scenes from popular life in his native country, he chose for his most remarkable work, painted during that period, "Milton dictating his Paradise Lost," which was exhibited in Paris at the Universal Exposition of 1878. This picture, well-known by numerous reproductions, is in the collection of the Lenox Library, New York city, and marks a new departure in his method of coloring, which hitherto had been of a rather sombre hue, with scarcely any relief.

Other of the painter's works are owned by Americans, such as the "Visit to the Baby," in the Stewart Gallery, the "Pawnbroker's Shop," in the Wolfe Collection, "The Two Families," in the Vanderbilt, and "The Studio," which shows the artist and his wife in his Paris studio, and which is owned by Mr. Walters, of Baltimore.

Mr. Munkacsy says of himself: "I never had a master or studied painting. During various periods of my life I have been favored with the entree into the studios of many famous artists, among them Piloty and Liebel, both of Munich; yet I dare say none of them would acknowledge me as their pupil, simply because whatever I have done has been in my own way, and if I have achieved

success it has been in working out my idea on my own lines. After all, you know, I am merely a practical painter and have but little knowledge and less respect for the rules, regulations and long-winded theories which some young men learn by heart in order that they too may become artists.

"An artist must be a child of great gladness or of great sorrow. I was the latter. I first saw my native country in the years subsequent to the invasion of the Russian hordes. Though born in 1844 my memory begins with the year 1849. It was then my mother died. A great famine prevailed in our country, and she succumbed, a victim to starvation. Then my father was thrown into prison for his participation in the uprising, where he soon died, at least so they said. In the next few months there was no civil government for good or evil in the country. Robbers controlled the rural districts. One night they attacked my uncle's house and in silence, by stealth, killed all its occupants save me. I awoke on the breast of my aunt who was cold in death. You may well imagine that having passed through these experiences I was not a very gay boy. I remember once when I first went to school they asked me why I did not laugh. I told them the truth when I answered that 'I had never learned how.' I was thoughtful in my temperament and given to *grubeleien*. When about thirteen years of age I was apprenticed to a carpenter, and worked for some years in making clothes-chests for the peasants. I knew how very fond those good people were of gay colors, and used to delight them by painting rough pictures or sketches on their boxes. I never shall forget the gratitude of an old Servian—you know there are some three million Servians in Hungary—whom I sent out into the new world with all the great and wonderful deeds of Marko Braukovich emblazoned on his trunk. Some years later I saw the portrait painter Szamosy at work in

Gyula. Then it was all clear to me. I knew what I had been dreaming about and for what I had longed. I determined also to become a painter, and after years of hard labor I believe I have become one. Of course I passed through much of what is called suffering in the meantime. I was often a self-elected guest at the *table d'hôte* of Hazard, and sometimes Dame Fortune would neglect to place a plate for me. All of these should not go to discourage the budding artist, but merely to show him that the palm is never to be obtained without struggling."

M. Munkacsy is a tall and striking man, aside from his face. His hair and beard are well sprinkled with gray. His eyes are gray, and his voice gentle and winning.

In describing the picture which is now the object of much consideration in New York, a writer says: "The artist has chosen the moment when Pilate, confronted with the accusers of Christ, who have brought him bound to the tribunal, is unable to convince himself of the prisoner's guilt. The scene is beautifully composed. Pilate is represented as seated on a raised dais, clothed in white. On either side of the Roman governor are the Jewish judges, Pharisees and the scribes, and at his right is the high-priest, a superb type of the haughty, imperious, fanatical Jew. He is denouncing the Saviour's pretentious claims and proclaiming his guilt as usurper and false prophet with gestures of imposing yet violent enforcement. In the centre of the picture stands the Christ, facing, with calm, unmoved expression both his accusers and his Roman judge. Crowding about him, pushing him, brutally staring and sneering, are the jeering, mocking populace, that Jewish people who are crying aloud that his blood may be upon their head. The most conspicuous figure among the multitude is a coarse, cruel-faced man of the people, who, with brawny, uplifted arms, and wide-open mouth, is in the act of crying "Crucify him! Crucify

him!" In the foreground stands the warrior-like figure of a Roman soldier, pressing back the eager crowd with his long spear-headed lance. All these forty figures are crowding the outer halls of a vast building whose grand architectural construction forms a superb frame to this noble scene. Through the open portico one catches a glimpse of the outlying city of Jerusalem, over which the artist has hung a curtain of deep blue sky."

Of the figure of Christ many different opinions have been expressed—but there

is general agreement that Munkacsy has portrayed the face of a fanatical teacher, an ascetic, melancholy, morbid man rather than one inspired with divine powers. This is our opinion. We failed to see the grandeur of soul, the sweetness of disposition, the noble, dignified manner, the calm and steadfast sense of a holy mission, in the face and bearing of the great artist's central figure, and these qualities, we had been led to believe from the statements of New Testament writers, were characteristic of Christ.

S.—D.

JOHN A. LOGAN.

AN exchange thus puts the truth into simple words: Few men have been so cruelly abused by the partisan press as was John A. Logan. None have been so persistently ridiculed. He was constantly held up as one without education, judgment or discretion. His excellent wife was given the entire credit of his success in the political arena and even as the mainspring of his success upon the battlefield. His life was not decked with flowers, and thousands of men would be unwilling to accept his fame as a recompense for the abuse and ridicule he received. At last John A. Logan died, and like a sunburst his character flashed upon the vision of both friend and foe. Throughout the length and breadth of the land, in the South as well as the North, there has not been found a man to speak a harsh word over his bier. There are thousands who are not willing to approve his political utterances; there are thousands to whom his manner was not pleasant, and there may be thousands who may greatly lament that with his impetuous nature he did not throw himself more to the fore in the advocacy of reforms in which the great mass of the American people are deeply interested; and in all the lavish praise that is being heaped about his memory none will forget or care to hide from view the

fact that he was a politician and had the ways of a politician. But in the face of all this, as before said there is a universal sorrow over the loss that the country has unmistakably suffered in his death, and an earnest desire upon the part of all to show respect to his memory. What is the secret of this exceptional exhibition of good feeling over the grave of one whose life was aggressive and who while living had so many opponents? We wish every man in public position would ask himself that question and truthfully answer it. We wish every young man starting out in life would make that inquiry and give such reply as the facts warrant. The answer is that John A. Logan, whatever other faults he had, and however much reason any of us may think we had to censure him, had never stained his record with official dishonesty. He was an honest man, and so warmly is honesty in public position appreciated by the people, that they gather to-day about the grave of John A. Logan, and vie with each other in doing honor to his memory. The press that opposed him for twenty-five years makes the word HONEST the first one in the head line of the obituary. Men who antagonized him politically, now stand on the platform and the key note of their eulogies is that he was honest.

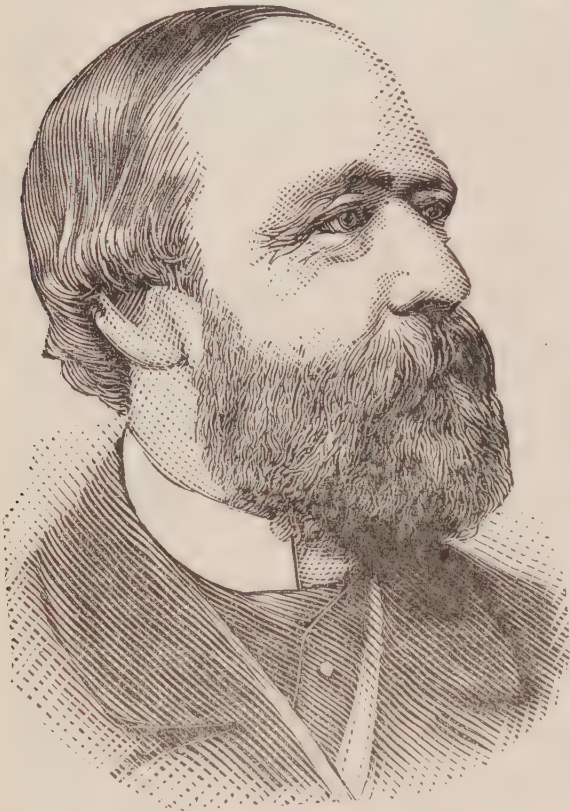
FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 14.

VENERATION.

A FEW years ago, a man very well-known in New York, because of his great business talents, died. He had been long deeply interested in the study of the mind and brain, and published a book containing his views. He accept-

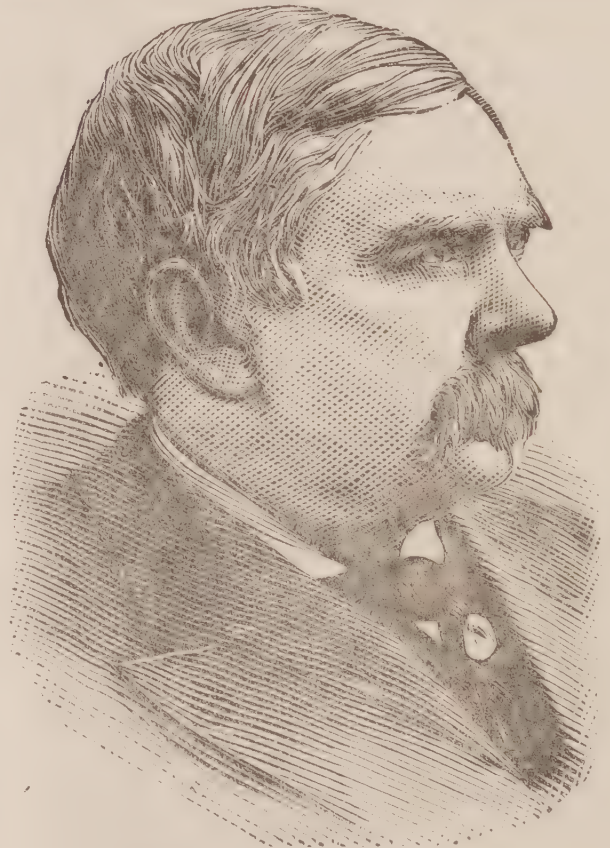
Too much attention was paid to the intellect, and people seemed to think that it was only necessary to train a child's intellect, and his moral nature would take care of itself.

This man's name was Hecker, John Hecker ; some of you who live near New York may have heard of him. I think that if you think a little you will see that he was quite right in his idea of such one-sided education. Suppose a boy's eyes are kept covered with a thick cloth, and he is made to depend upon his hearing and touch to get along, wouldn't his sight become weaker and weaker and finally be destroyed ? Suppose that one of you had been kept from books and study from the time you were five years old, wouldn't you appear very ignorant



VENERATION LARGE. BARON M.

ed the phrenological system, and was very anxious that it should be made a part of the instruction in the public schools. He had a beautiful bust of Washington made, on which the organs were mapped off, and this organ we are going to talk about he called Godliness, because he believed that it had particularly to do with man's belief in an over-ruling providence, and his worship of God. This business man said that there was a great want of the disposition to revere and worship God in the young people of America ; that their heads showed a lack of the organ, and it was in great part because the education of the times did very little toward training children in moral and religious things, and so did not make the moral organs grow.



VENERATION AND FAITH MODERATE.

and silly when among people who had been to school ? Then, how can it be expected that a man will be kind, respectful, honest, good-natured, polite and refined, unless he had advantages and training when young that made

the organs in his brain grow that have to do with those desirable qualities.

You hear it said that some people "were born good," and that's the reason they are so much better than the average; but I can assure you that if a boy is "born good" and then gets into bad company, and has bad training for most of the time he is growing up, his naturally good faculties will be warped and changed, and his selfish faculties will become stronger and stronger, and he will turn out most likely a careless, vicious loafer and rowdy. There are hundreds of wicked and desperate men in the country who were

is peculiar to man and has been active in him from the beginning. Away back in the ages when our race is said to have been a horde of miserable savages living in caves or roughly constructed huts, and using flints for knives and round stones for hammers, man was religious, and he has left with the few relics that remain of his early existence sure signs that he believed in a Supreme Being, and in his rude way tried to show that belief by acts of devotion. It is probable that in many cases the existence of tribes of people who lived in Europe and America, long before the time of history,



"OUR FATHER WHO ART IN HEAVEN."

born with good heads, naturally excellent organs of the intellect and moral nature, but were spoiled in growing by neglect and careless or bad teaching.

Veneration is the chief organ in the group of moral sentiments, and it has a place in the brain that seems to declare its dignity. It is in the center of the top line of organs, between Benevolence and Firmness, and by its side are Hope and Faith. Its effect on the mind is to awaken reverence and respect for what is holy, great, venerable and true; hence, in its higher functions, it produces the religious sentiment of worship. It

would not have been discovered at all if it were not for their religious ceremonies, by which they were led to build altars and burial places for their dead, and which are the only things they did that have lasted to the present time.

Veneration inspires respect for age, authority, and deference toward superiors. If any of your companions are flippant and careless in their treatment of their parents and other grown members of their families, depend upon it, in most cases they are small or moderate in this faculty, and there is great need of its training and exercise. I meet

bright, quick boys very often who treat the older ones at home in an offhand, careless fashion ; speak to them rudely, and pertly answer their questions with jokes, and appear to regard them as of little importance. Now these boys are not vicious at the bottom ; they would not wilfully hurt the feelings of mother or aunt, or grandfather, and they are ready to do any service for them, but they have gotten into the habit of acting so because their Veneration is not well-developed or active, and perhaps also because when quite small they were allowed to have their own way too much, and full obedience and respect were not demanded of them. Little Bessie came in

her conduct in this case, but her mother was very wrong in not reproving her for the fault instead of appearing to commend her. That kind of treatment of their children is very common among parents, I regret to say, and its natural result is to weaken the moral sense of their children, making them not only disrespectful but dishonest and tricky.

An excess of Veneration may render a person weak in one way or another. He may show an absurd devotion to customs and practices that are old, and be meek in his attentions to people of rank and wealth. One with moderate Firmness and Self-esteem and large Veneration will often be a mere tool in the hands of the strong. But I should rather have too much Veneration than not enough, if it does make me appear ridiculous--and I advise you, my young friends, not to be afraid of any such effect in trying to improve your manners, and to cultivate a proper religious spirit.

IDEALITY.

We are possessed of faculties that enable us to appreciate, *i. e.*, to value, estimate the simple qualities, such as form, color, weight, size, etc., that make up the objects around us, and to judge of their relations to each other, whether they are combined well or badly for practical use. If you were buying a lead pencil you would examine several, probably to get one of the size, color, shape and hardness or softness that suited you. Perhaps the thought of beauty in the pencil might not come into the matter ; if you got one that was of a size to suit your hand, could be cut without breaking off just when you were getting it to a point, and would make a good, black mark, that would be enough. But if you wanted not only a pencil for use but also one that was ornamental, and you looked through the stationer's stock to find one with gilding on the side and a polished, metal cap, you would be influenced by a faculty called Ideality—that has an organ in the side of the



IDEALITY LARGE. MR. C. M. D.

and asked, "Mamma, please can I go round and see Lucy?" "Yes, my dear," replied the mother. "Thank you, mamma, I've been," was the response of the child. This was thought to be a very smart trick of Bessie, and mamma and papa told it to their acquaintances as a good joke, and of course Bessie wasn't kept in the dark about her smartness. I think that she showed more Conscientiousness than Veneration by

brain directly between Constructiveness and Imitation. The function of this organ is to inspire a love of the beautiful, graceful, nice and elegant. You may have large Order, and like to see things arranged in a methodical way, each of a kind by itself, and in a certain place—but while method is useful it is not beauty. The carpenter makes a frame of rough wood for a grape-vine, and the job is called a good one if he sets the posts in a straight line and nails on the strips at regular distances from each other. It looks then as if it were serviceable for the purpose, but no one would call it pretty. Summer comes, the vine has trailed over the frame, its shoots winding around the strips and its broad leaves almost covering every opening. Now we say "How pretty!" and we enjoy looking at the vine-clad frame. It pleases us, excites a higher faculty than Order, Color and Constructiveness, and according as that faculty is strong or weak will beautiful things in nature and art give us enjoyment.

Some people do not have much Ideality, and they show their want of it; they are satisfied with plain houses, plain furniture, plain everything, and think ornament and finish all nonsense because they do not make things any better. Other people want everything nicely finished; if they buy matches will prefer those that are cut round and nicely colored at the fire end to the square ones, although the latter are just as good to strike a light and cost less. They want handsome things in their houses and will go long distances to see pictures and sculptures. They like poetry and fine speaking, and if well educated show a great interest in good literature. These have large Ideality, and their heads are broad between the temples at the upper part of them, while the other class I spoke of are rather flat in the same part.

Boys and girls who write compositions that are pretty full of adjectives and high-sounding words and poetic quotations, who have what we used to call a

"high-flown style," are rather big in the Ideal faculty. On composition day the plain, homespun fellow who hadn't any romance in him would get off something like this:

"Last Saturday three of us went up to Deacon Smith's mill pond to fish. We had just got there when it began to rain, and so we didn't do much fishing, but after awhile went into the barn where we amused ourselves with Deacon Smith's dog, Swift—and talked about oats, corn, potatoes and so forth until it was dinner-time and we had to go



IDEALITY MODERATE.

home. If it had not been for the rain I think we would have caught a mess of sunfish and perch, and had a good time."

But when Kitty Morgan got up in her turn to read her composition we expected to hear something like this:

"How beautiful the hour of twilight, when the last gleaming rays of the sun light up the soft, fleecy clouds in the violet western sky! You walk along yon quiet hill; from the deep emerald meadows dotted with peaceful cottages comes the soft tinkle of bells, and the plaintive lowing of kine. As the light

of the orb of day fades the stars hang out their glittering lamps in the deep blue vault of heaven, and our yearning hearts can not but feel the soothing influence of their lovely gleam. Oh, is it not delightful to dwell upon the stars in the early evening time?"

All great poets and artists are marked by the development of this organ. Should it ever be the privilege of any of you to visit the great centers of art in Europe you will be struck by the fact that the marble effigies of men like Shakespeare, Milton, Cowper, Burns, Dante, Moliere, Goethe, Buonarotti, Raphael, Rubens, Murillo, Titian, Beethoven, Turner, Reynolds, are very strongly filled out in the side-head near the front. But you need not go across the Atlantic to find the evidences I speak of, for Irving, Poe, Cooper, Bayard Taylor, Bryant, Drake, Peale, West, Beaufain-Irving, Powers, and the many others who have given honor to American literature and art show that fulness of the upper temple-region that means power to perceive and enjoy beauty.

Cultivate your tastes; let them refine your lives in every way. Avoid the coarse and degraded, everything that makes a stain or mars the soul. Don't think that beautiful things are soft and weakening; properly used they will elevate and strengthen the best principles of your nature. Ideality prompts to some of the highest enjoyments that are possible to the human mind. While it helps one's understanding of the perfect and beautiful in the world around us, it also helps us to see the great beauty in the world of thought in spiritual and moral things. The poet Percival writes:

"the walls

That close the universe with crystal in,
Are eloquent with voices that proclaim the
Unseen glories of immensity,
In harmonies too perfect and too high
For aught but beings of celestial mould,
And speaks to man in one eternal hymn,
Unfading beauty and unyielding power."
Thus Ideality speaks through the intel-

lect and quickens every feeling of the soul.

FAITH OR SPIRITUALITY.

What would the world do without Faith? In some respect it is shown by everybody. As human beings we are dependent one upon another; no one can live entirely to himself, and he who says that he can is a foolish talker. When a man goes away from his friends and settles down on a lonely farm, and there lives quite alone he is for all that dependent. He can not create his food or clothing but must trust to what the



FAITH LARGE.

ground will produce and the woods supply. He plants his seed and expects it to grow and in time mature into grain. He goes into the woods to catch animals for their skins, and expects to find them in the traps he sets. He thus shows faith. Knowledge increases faith. People say "I know the seed that I plant will sprout," "I know the sun will rise to-morrow morning," "I know that it will be warm in summer," because they have learned these things from experience. Ages upon ages have passed and these occurrences have gone in a re-

gular order, and it is a universal belief that they will continue, but it is plain that out of the belief arises our expectation, or confidence that they will be repeated the next year and the next without limit; it is our faith that projects or throws forward the facts of knowledge into the future. Most of us do not realize the bearing of such common facts as those I have mentioned upon the moral faculties, and it would be better for our moral nature if we should now and then stop to think

easy, comfortable state of things now known!

Besides inspiring trust and confidence in our wordly affairs Faith, in its working with Veneration and Hope, has a spiritual side, and leads us to believe in a higher stage of existence that will be ours after death; hence it gets the name of Spirituality. Those who have the organ large show a fulness in the head outward from Veneration and back of Imitation (see diagram, in January PHRENOLOGICAL JOURNAL, Number 17)



A MINISTERING ANGEL.

awhile upon the influence of our everyday life upon the faculties of Hope, Faith, Veneration, etc.

In our dealings with people as friends, and neighbors, in business, in pleasure we must be exercising this faculty of Faith a great deal and because we have become so much accustomed to it we think very little about its effect upon our affairs. What hindrances and obstructions there would be if the sentiment of trust should suddenly be wanting in our minds, as compared with the

and they are usually known for their religious belief, liberal treatment of the statements of others, and disposition to accept new discoveries and new truths. When a man has a large development of this faculty, and his education and home belongings have been poor he is likely to be easily persuaded to believe many foolish things, and be rather superstitious on his religious side.

If you notice the heads of your young friends who are very fond of reading stories of wonderful doings, like those

of giants and magicians, and appear to believe in ghosts and spirits and never tire of talking about them, you will see a pretty good development of Faith.

The men and women of history who have been leaders in religious work, whatever their creed, must have had very strong Faith or Spirituality to stimulate their zeal and energy. St. John and St. Paul, Ignatius, Melancthon, Loyola, Ursula, Whitefield, Ann Lee, the founder of the Shaker Society, were all remarkable in this respect. But they who make light of religious things, and are slow to believe anything that is new to their experience, have but a small amount of the faculty. I think that Spirituality is very helpful to a man, because it gives him wider views of life and its duties than he would have without it, and enables him to find higher and nobler enjoyments than those supplied by the animal senses. If you take any great man—I mean of course a man who deserves to be called “great” because he has done something to make the world better and happier—and analyze his feelings and purposes, you will discover that his moral nature was very active and his

ideas of life were high and unselfish; that he believed in an overruling Power and felt that he was sustained by that Power.

It is beautiful to see the enthusiasm of some people in work that demands self sacrifice and trials, like that of missionaries, for instance, who go away off into wild countries and among savage tribes. They believe in the sacredness of their calling and trust to God for safety and strength. There is a grandeur about such conduct that makes us admire them. But I believe that to all who are earnest and sincere in doing what comes to them, whatever their place, Faith lends its aid and charm. Emerson, the American writer, called by many a philosopher, says in one of his essays, that “the child of the dust” that “throws himself by obedience into the circuit of heavenly wisdom, shares the secret of God.” Whatever that “secret” may be it is something of the highest value to one who would be true as man or woman; and in cultivating with care the gifts of your moral and religious nature, young people, you will the sooner be able to enjoy life and be happy.

EDITOR.

OUR CORNER MAN.

PART I.—FEELING BLUE HE QUILTS THE CORNER, TAKES A RAMBLE, AND MAKES A DISCOVERY.—A MEETING OF THREE MEN WHO HAD MOTHERS, AND A POLITICIAN WHO WAS BORN WITHOUT PARENTS.

YOU may not find it within the nature or limits of your power to give credence to the following, but the fact remains. He is one of the quietest, yet most boisterous, strangest and quaintest men you ever met in a day's blackberrying. Crammed full of philosophy and science, we have known him to lecture to audiences without notes for a full hour and a half, and that on the most abstruse subjects. Or at times he may be found at a social gathering sitting as calm as a church mouse, while

the readings, songs and accompaniments are in progress. The music ceasing all eyes are turned upon him with expectancy, and a string of anecdotes follow, or his powers of mimicry are at once brought into play, when for an hour or more he will keep the whole room laughing at his portraiture of characters met with.

The gathering over and returning home late—if you observe him closely—the big tears may be seen to roll down his face, as some poor woman seated in

a dark doorway with a wan-faced child nestling in her arms appeals to him for help.

At once thoughtful and studious, tender, passionate, philosophic, sad, quiet and boisterous, it is needless to add that the individual referred to is an Irishman. Legitimately permit him to exercise his entire faculties and he is a whole man. Cramp any one of them, and all the others become sick.

He is named "Our Corner Man" from the fact that he delights to take up a position at any street or alley corner, and in damp weather from the highest window near a house top. From these posts of observation he is enabled to note to his satisfaction the peculiarities of passers by—their gait, walk, swinging of the arms; in fact, as he himself terms them—the character motions of moving matters. He loves to study human nature in its varying moods. To him *Form* is an universal language—everything has its physiology.

The first moment we caught sight of this man was, when a few weeks ago, he banged the door and rushed into our publishing house. It was on a Saturday evening that had turned out quite cold and the gentleman himself was looking blue. He now declares, however, that the lights and bright faces he met in our store, and the kind reception given him by the editor quite cheered him up.

In fact, he found himself for the first time "among phrenologists," whom he alleges, "placed" him the moment eyes met and treated their visitor accordingly.

That night he declined to take his stand at the corner of 14th Street and Broadway, but on quitting our office suddenly dashed in the direction of the Astor House and turned down Barclay Street. It may be remarked in passing (we don't mean Barclay Street) that when our friend desires to make a turn it is a thing he seldom states and never discusses. Entering a half saloon and half restaurant he demanded a glass of

new cider. "Our Corner Man" knew from experiences blues meant biliousness. Presently a conversation seemed to proceed from a near compartment to the reading-room in which our friend had taken up his location. The voices were those of men and the tones gradually rose till they reached a pitch of acclamation. One of the persons engaged in argument, had evidently lost his mother at a recent date. As every man more or less loves to dwell upon the early maternal care, the conversation naturally reverted to mothers and their qualities.

Instantly the notebook and pencil of "Our Corner Man" was at work. There were three disputants and one listener in the room adjoining. The latter was a heavily set man whose hand and arm hung loosely over the back of his chair. The hand could be seen distinctly from between the hinge of the door. The thumb on that hand sent a cold shiver through the frame of our good-natured friend. "Gracious," he thought, "what a size is that thumb-top!" Broad, and heavy, and thick, set with the nail well-flattened, it resembled what our facetious observer has been since pleased to term "a young drum stick." The leading characteristic of the heavy man's nature was at once manifest. He was murderously inclined and *revengeful* to the last degree. Still "Our Corner Man" listened and pursued his writing. It was not long before the discussion seemed to flag. Here he rose and entered the department of the contentionists.

"Pardon me, gentlemen—as he removed his hat—but I could not help listening with some interest to the different descriptions you have been giving of your mothers. I am a stranger among you, but have had the good fortune at one time to possess a mother myself."

"You're quite welcome, sir, sit down; what'll you take—a little rye?" suggested a fat man who had appropriated the broadest chair by the fire.

"No, thank you, I never drink alcoholic liquors, and in particular to see me swallow that beverage would only have the effect of making you all laugh." "Why, sir?" "Why, simply because it would compel me to wear a *wry* face for three hours and—"

"Well done, by George, that's a sharp pun—say now you're a good one; just tell us what you've got to say about our mothers," said the fat man.

"Well, gentlemen," replied our friend with a laugh—"permit me to say that the disputant who urged that his mother in her lifetime was noted for kindness to the poor and giving nearly all she had away, if, I say, that gentleman can remember the form of his mother's head and face, he will admit that the latter feature was rather long than wide; that her mouth, of necessity, being kind, had in all probability the under lip prominent, while that point of the forehead where the hair parted was unusually full and high."

"Well, I never, Jack!" exclaimed the man turning to his neighbor, "if that don't seem as if the gentleman lived as close to my mother as I did myself."

"Say, governor," said the man, continuing—"what have you got in that notebook?" "I was about to ask," pursued 'Our Corner Man,' lightly evading the last question, "which of you gentlemen remarked in the course of discussion that his mother used to constantly rate his father and other members of the family for misplacing household articles, that is, moving things from the place where she designed they should stay to some out-of-the-way nook where she never could find them readily—the match box, for instance?"

"I'm your huckleberry," said the tall, pale-faced man at the end of the room.

"Then that lady's forehead, if you remember, was rather full over each eyebrow; besides, if you ever took notice of her hands, you would have discovered that the joints on her fingers were more or less knotty, thus indicating a love of

order, or—as no doubt she herself used to term it—"the desire to see everything in its place." The pale man glanced instinctively at his own hands and roared out: "Right again; why, Tom," he continued, addressing the fat man, "my mother has been dead these ten years and this gentleman could never have seen her hands or eyebrows, yet, it's exactly as he says. Now, I tell you what it is, reading a woman like that licks cock-fighting."

"There is nothing extraordinary in it, my friend," replied our diligent note-taker, "the science of the hand, face and head, if rightly understood, never errs."

"Now, I don't know so much about that," said the third man, whose nose indicated that it might be employed occasionally to pick a dollar out of a key-hole, "our doctor says that Phrenology is all moonshine."

"Pardon me, sir," pursued "Our Corner Man," "but probably your doctor never studied the subject with as much light as the moon supplies. If he had he would have seen more than his opinion indicates. In all probability your physician permits his feelings to rule the subject; whereas, Phrenology, proper, with all the other details of science which it involves, permits only reason to interfere with its conclusions."

"Yes, governor, but our doctor says that two phrenologists told him different things."

"It depends, my friend, upon what or whom your physician is pleased to term a phrenologist. Again, in particular instances of the application of the science, and where a complex temperament is involved, and added to this where an unscientific reader is employed, contradictions to fact relating to the person may seem to arise; but in no instance where two thoroughly scientific examiners are consulted will these be found to disagree."

"Well, sir, but you'll admit that a difference of opinion will not—though

coming from our doctor—harm the truth if there be anything true in your science.”

“It is admitted, my friend ; you may even be assured that the interests of truth in general demand that there exist a diversity of opinions. The only claim I make is, that an opinion should rest upon logical ground.”

“Governor,” said the fat man, “you talk like a book ; go on ; I like to hear you.”

“Well, I did not intend to deliver a lecture when I first spoke, but the thought suggested itself that if a truth demands advocating it must be so advocated that it is listened to.”

And so from this the last speaker went on further to describe to his auditors the different peculiarities of the mothers discussed. But that silent man over there by the door, what of him ; that one with the enormous development of thumb-top. The thought compelled “Our Corner Man” to glance in his direction. The fat man seeing this instantly called out : “Say, sir, if you please, can you tell us anything about the mother of that there big fellow ?” The lean man straightened himself bolt upright and looked with open eyes. “Our Corner Man” felt very cold as he turned to the large man. Disguise as he would, he perceptibly betrayed his misgivings.

“Pray, sir, may I ask you a question ?”

“Certainly,” replied the large man, gruffly. “Say, governor,” whispered the lean man in our note-taker’s ear, “be careful with him, he brought down his two men within the last five years ; one with a six-shooter at the 9th ward in an election fight two years ago, and the other a cowboy who he knifed in California over a game of cards.”

“Moses in heaven,” thought the Corner Man. But he continued addressing the man of scowls. “Well, sir, may I ask if you remember any peculiarities or particular traits of character in your

mother ? Or, probably the lady may still live,” suggested our man timidly.

“I never had a mother, boss,” returned the heavy man.

“Then am I to infer from that that you were fatherless too ?”

“No doubt of it,” replied the man with the revengeful thumb.

“But may I ask how you account for your existence ?” “Can’t you guess ?”

“No.” “Well, if you want to know, I was a foundlin’.” “Oh ? a foundling !”

“Yes,” and the gruff man looked daggers.

To argue further would have been madness ; so muffling up his throat and arranging his great-coat collar, with a polite “good night,” “Our Corner Man” made a headlong dive for the street door. Here the little fat man called out : “Say, governor ! won’t you have a little something—if only a glass of beer ?”

“No, thank you, I’ll be on my *bier* soon enough,” and “Our Corner Man” was lost in the darkness without.

ST. TOMS.

IN SUMMER.

It is not much in this soft, golden air,
That holds no hint of storms nor thunder-shocks,
To smile, and sigh, and say, “I love you, dear ;”
For Love sails smoothly on a sea so fair,
And, wrapped in dreams, forgets the sunken rocks
O’er which the waters glide serene and clear.

But when the rose and gold fade from the sky,
And chilling winds go wailing sadly by,
And all the summer glow of life is out ;
Ah, tell me, are you sure,
Beyond all fear and agonizing doubt,
That Love will still endure ?

A. L. MUZZEY.

A DIVIDED REPUBLIC.—AN ALLEGORY OF THE FUTURE.

THE forty-ninth Congress adjourned without enfranchising the women of the Republic, and many state legislatures, where pleas were made for justice refused to listen to the suppliants. The women of the nation grow more and more indignant over the denial of equality. Great conventions were held and monster mass meetings took place all over the land. But although men had been declaring that so soon as women wanted to vote they would be allowed to, they still continued to assert in the face of all those efforts that only a few agitators were making the demand. An enormous petition was sent to the 50th Congress containing the signatures of twenty millions of women praying for suffrage, and still Senator Edmunds and Senator Vest insisted that the best women would not vote if they could.

Matters began actually to grow worse for women. The more honors they carried off at college the less were they allowed to hold places of public trust or given equal pay for equal work. Taxes of oppressive magnitude were imposed on women, for a new idea had seized the masculine brains of the country. They wanted to fortify our sea-coast. The women protested in vain ; they said they did not want war, that they never would permit war, and that all difficulties with foreign nations, if any arose, should be settled by arbitration.

The men paid no attention whatever to their protests, but went right on levying heavy taxes and imposing a high tariff on foreign goods, and spending the money in monstrous forts and bristling cannon that looked out over the wide waters of the Atlantic in useless menace.

Drunkenness, too, increased in the land. It is true that sometimes women were able to procure the passage of some law to restrain the sale of liquors, but the enactments were always dead letters ; the men would not enforce the laws they

themselves had made, and mothers saw their sons led away and their families broken up, and still no man heeded their protests.

The murmurs of discontent among women grew louder and deeper, and a grand national council was called.

Now the great leader among women in this time was Volumnia, a matron of noble appearance, whose guidance the women gladly followed. When the great council met at Washington every state was represented by the foremost women of the day, and all were eager for some radical action that should force the men of the nation to give them a voice in the laws.

All were assembled, and the great hall filled to its utmost limit by eager delegates, when Volumnia arose to speak. "Women of America," she said, "we have borne enough ! We have appealed to the men to set us free. They have refused. We have protested against the imposition of taxes. They have increased them. We have implored them to protect our homes from the curse of intemperance. They have passed prohibition laws on one day, and permitted saloons to be opened the next. We are tired of argument, entreaty and persuasion. Patience is no longer becoming in the women of America. The time for action has come."

And this vast assemblage of women stirred to the utmost shouted

"ACTION !"

"I have a proposal to make to you," she continued "the result of long study and consultation with the profoundest female minds of the country. It is this :

Within the limits of this so-called Republic there is one spot where the women are free. I mean in Washington Territory, that great state that has been refused admission to the Union, solely because women there are voters. I have communicated with the leading women of that region ; some of them are here to

speak for themselves, and others are here from the sister Territory of Wyoming. With their approval and aid I propose that all the women of the United States leave the East where ancient customs oppress us and where old fogysism prevails, and emigrate in a body to the free West, the lofty heights of the mountains and the broad slopes on the coast of the majestic Pacific."

Wild and tumultuous applause followed this proposal, which was at once enthusiastically adopted by the assembled multitude, who after a few days of discussion as to the means to carry out these designs dispersed to their homes to make preparations for the greatest exodus of modern times.

In the early spring all arrangements were complete, and then was seen a wonderful sight. Women leaving their homes all over the land, and marching by night and by day in great armies, westward. All the means of conveyance were crowded. The railroads were loaded with women, the boats on the great lakes were thronged with them; the Northern and Central Pacific roads ran immense extra trains to convey the women to their new homes.

It must not be supposed that their departure took place without protest on the part of the men. Some of them were greatly dismayed when they heard that wife and daughters were going away, and essayed remonstrance, but the women had borne so much so long that they were inexorable—not always without a pang, however.

Volumnia had long been a widow, and therefore owed allegiance to no man; but she had a young daughter named Rose, who was as pretty as she was accomplished, and who cherished a fondness for a young man who admired her.

When he learned of the proposed exodus this youth, whose name was Flavius, hurried to the railway station, reaching there a few moments before the departure of the train. The waiting room was crowded with a great throng

of women, but Rose was lingering near the door, Flavius seized her hand and he drew her aside and with eyes full of love and longing, said:

"You surely will not go, Rose; stay and let us be married at once."

Rose blushed, and for a moment trembled under his ardent gaze.

"Oh, Flavius, if it only could be," she whispered.

There was a stir in the crowd as some one announced that the train was ready. Rose started as if to go.

"Stay, love, stay!" entreated Flavius.

She hesitated and raised her eyes; they were swimming with tears; "I can not," she said, "honor before love,"—then she drew a little nearer—"but you can help to bring us back—obtain justice!"

She broke off abruptly as she heard her mother calling her name and hurried away.

Volumnia's great co-worker was a certain lady called Cecilia, and to her also there was a trial in parting. Her father was elderly and infirm, and although possessed of ample means, he depended much on the companionship of his daughter. For a brief moment she hesitated to leave him; then she said sternly: "The Roman father sacrificed his child; Jephtha gave up his daughter at the call of his country; then so will I leave my father for the demands of my sex and of humanity."

Then despite all entreaties and expostulations and even threats, which the men at some points vainly tried, the women every one departed, and after a few days in all the great Atlantic seaboard, from the pine forests of Maine to the wave-washed Florida Keys there was not a woman to be seen.

At first most of the men pretended that they were glad.

"We can go to the club whenever we like," said a certain married man.

"And no one will find fault with us if we drop into a saloon," added another.

"Or say that tobacco is nasty stuff," suggested a third.

Other individuals, too, were outspoken in regard to the relief they felt.

Dr. Hammond declared that the neurological conditions which afflicted women had always rendered them unfit for the companionship of intelligent men.

Carl Schurz said that the whole thing was a matter of indifference to him. No one took any interest in the woman question anyway.

John Boyle O'Reilly was relieved that no Irish women would hereafter ask him hard questions as to what freedom really meant.

There was much rejoicing among the writers also. Mr. Howells remarked that now he could describe New England girls just as he pleased and no one would find fault with him; and Mr. Henry James was certain that the men would all buy the "Bostonians," which proved so conclusively that no matter how much of a stick a man might be, it

was far better for a woman to marry him than to follow even the most brilliant career.

On some points the rejoicing was open. The men in Massachusetts declared that they were well-rid of the women; there were too many of them anyhow. The members of the New York Legislature held a caucus, irrespective of party, and passed resolutions of congratulation that they would not be plagued with a woman's suffrage bill.

Meantime Volumnia and her hosts had swept across the Rocky Mountains and taken possession of the Pacific slope. Not Wyoming and Washington alone, but Idaho and Montana, and all the region between the two enfranchised territories.

By an arrangement previously made with the women who dwelt in these lands the few men were sent eastward, and in all that wide expanse of territory there were only women to be seen.

(To be concluded in March.)

LILLIE DEVEREUX BLAKE.

CHANGING.

NATURE is constantly changing.

In the spring-time she gently breathes upon her ice-bound rivulets, and lo! the fetters are loosened, and the waters rush gaily o'er their pebbled bed. She kisses the violets and they open their sweet, blue eyes. She decks herself in a robe of emerald green, and crowns her locks with beautiful sweet-scented, many-tinted blossoms. She startles the birds from their lethargy, and her orchestra is filled with soul-intoxicating melody. Every day she unfolds new beauties. When the storm-cloud gathers upon her brow, and the echo of her grand artillery reverberates from hill to hill with its wonderful, dazzling, track of light; and in the summer-time, when the days are hot and changeless, with unclouded skies, a great change is constantly going on, as we

realize later, when we see autumn, robed in regal splendor, loaded with golden grain, and beautiful, luscious fruit, ripened and perfected during the very days we thought so dull and changeless. Perhaps at this season, more than at any other, nature asserts her variable mood. Sometimes we wonder at the variety of form in which she presents herself, confiscating every shade of green, russet, gold, and carmine; and even when laying off her royal diadem she dons her robe of spotless white and crown of sparkling jewels, she is not sleeping, although she seems so quietly dormant, for in her warm breast she cherishes the germs that are gradually expanding and being fitted for the commencement of an awakened life. But with all her changing she is not prodigal, nothing from her vast resources is

ever wasted ; strange as it may seem, even the impurities that gather over her bosom are changed by her mysterious mechanism into agents of usefulness to assist her in her work. While man looks on with wonder at this *perpetual motion*, neither himself nor the work of his hands is exempt from this law of change. How quickly is the cradle of the infant put aside for the pastimes of youth, which are as quickly succeeded by the bridal array, or the pall and bier. To-day we live, to-morrow we die. To-day the ploughman passes back and forth in his labors, to-morrow the plough stands still in the furrow, or is guided by other hands. We meet cogenial spirits to-day, to-morrow we follow them to the tomb ; they slip out of their places in their homes, and for a while, there is a vacant chair. The sables of grief tell us the death angel has passed that way. Then those who love them best follow in their footsteps, and the clods of the valley fall upon them ; thus we too shall fall away out of the sight and embrace of our loved ones, as a stone thrown into the water causes a rippling commotion for a season, so the ripples of love will play for a short time over the spot where we went down ; then they will cease, and love itself die too. Others will fill our vacant places, and strangers tune the harps our hands were wont to play.

“Who,” saith the proverb, “shall ride from his destiny? The wing of the bird is no security against the shaft of the fowler, and the helmet and shield keep not away the arrow that is *poisoned*. He who wears the greaves, the gorget, and the coat-of-mail, holds defiance to the storm of battle ; but he drinks and dies in the hall of banqueting. What matter it, too, though the eagle soars and screams among the clouds, half way up to heaven, flaunting his proud pinions and glaring with audacious glance in the very eye of the sun—death waits for him in the quiet of his own eyrie nestling with his brood.”

The busy brain of man seems almost exhaustless in its power to conceive and create, yet it can build nothing that is *eternal*, that will not succumb to the grinding of the wheels of time as they roll on. All around us are ruins that speak of wonderful power and gigantic strength. Colossal temples, inlaid with precious gems, towering high towards heaven, crumble and fall away before the sweeping march of years.

Monuments in which the builder has thought to rear for himself fame and immortality, lie at our feet, a mass of ruins. Illustrative of this is that fine passage in Montaigne’s “Reflections on the Rise and Fall of Republics :” “Greece, once the nurse of arts and sciences, the fruitful mother of philosophers, law-givers and heroes, now lies prostrate under the iron yoke of ignorance and barbarism.

“Carthage, once the mighty sovereign of the ocean, and the center of universal commerce, which poured the riches of all nations into her lap, now puzzles the inquisitive traveler in his researches after even the vestiges of her ruins.

“And Rome, the mistress of the universe, which once contained whatever was esteemed great or brilliant in human nature, is now sunk into the ignoble seat of whatever is esteemed mean and infamous. All this gives us a feeling of insecurity, as though we were treading upon quicksands that were ready at any moment to engulf us in their treacherous bosom.”

From all the changing, the decay, the ruins, we turn away and ask : Is there nothing abiding, nothing immovable? Does everything change and and fade at one touch? and to our hearts the answer comes, “Yea, verily, earthly objects are fleeting and transitory, but beyond the *shadow land* there is a world of joy and beauty that is *immutable* and abideth forever.” To us is given the key, even *The Word of life* that will unlock the gate leading into the *Eternal City*.

MRS. E. H. DAVIS.

THE FLOWERS OF OLD ENGLISH POETRY.

ENGLAND is a flowery land ; a kind of perpetual spring-time reigns there, a perennial freshness and bloom such as we never see under our colder skies. The flowers may not be so beautiful ; in fact, they have neither the brilliancy nor the delicacy of those in our land, but for profusion there is nothing like it here. The prodigal out-blooming of flowers is wonderful ; they throng the fields, lanes and highways, and are known and seen by all. Every orchard and garden is rosy and purple with blossoms ; the primrose covers broad hedge banks for miles as with a carpet of bloom ; the spring meadows are carpeted with daffodils

“That come before the swallow dares, and take
The winds of March with beauty ; violets dim
But sweeter than the lids of Juno’s eyes,”
and the mid-summer grainfields from one end of the land to the other are spotted with fire and gold in the scarlet poppies and corn marigolds.

These flowers have been made so familiar to us by Shakespeare and the early



DAFFODILS.

poets, that we seem to know them as we do our own arbutus and violets, our dandelions and buttercups. Their fragrance breathes all along their pages—anemones and wild hyacinths that are like azure harebells for blueness ; “bold ox-lips, and the crown imperial ; lilies

of all kinds ;” columbines and orchis ; roses and eglantine ; the “yellow cowslip, and the pale primrose” of Milton’s “May Morning Song ;” and all the lovely blossoms of that sweet time :

“When daisies pied, and violets blue,
And lady smocks all silver white,
And cuckoo buds of yellow hue,
Do paint the meadows with delight.”

These flowers are nearly all wild, or field flowers, and do not grow in gardens at all, but are not so shy and retiring as our sylvan favorites. All the so-called



DAISIES.

wood flowers in England are met with in the fields and along the hedges, and occur in profusion. Wordsworth sings of “golden daffodils”

“Continuous as the stars that shine
And twinkle on the milky way,”

and the show of other flowers is just as lavish. Tennyson speaks of “sheets of hyacinths.” In places it makes the underwood as blue as the sky, and its rank perfume loads the air.

The daisy was the favorite flower of Chaucer, who calls it the Day’s Eye, probably for its habit of closing its petals at night, which it also does in rainy weather. In his “Canterbury Tales,” he writes :

“The daisie, or els the eye of the daie ;
The emprise, and the floure of floures alle ;”
and again further on :

“To seen this floure agenst the sunny sprede
When it riseth early by the morrow,
That blissful sight softeneth all my sorrow.”

Chaucer’s daisy was the *Bellis perennis*, which in America is a garden plant, but

is abundant everywhere in Europe. In French the daisy is termed *la Marguerite*—"a pearl," and "herk Margaret" is stated to be an old English appellation for it. In Scotland it is popularly called the gowan, and in Yorkshire it is the bainwort, or flower beloved by children. The Christmas or Michaelmas daisies are a species of aster; the ox-eye daisy is the species *chrysanthemum Leuconthemum*.

What a garland of incense Shakespeare names in one breath in "The Winter's Tale," as he makes Perdita say:

"Here's flowers for you:

Hot lavender, mints, savory, marjoram;
The marigold, that goes to bed with the sun,
And with him rises weeping."



ASTER.

These are all midsummer flowers. The wild marjoram (*origanum vulgare*) has become sparingly naturalized in the United States, adventitiously introduced from Europe. It can be found occasionally upon dry banks and sunny slopes. Its flowers are very pretty, appearing in the months of July and August. There are about twenty-five species of the genus enumerated, of which the most common in the gardens is the sweet marjoram a native of Barbary and Middle Asia.

The showy plants known in gardens

as the African and French marigolds belong to the genus *tagetes*; the marigolds of the poets are an entirely distinct genus of *compositae*. The old naturalists called them Mary Gowles, a name from the Anglo Saxon for another plant which has been transferred to these probably on account of a similarity of color. The pot marigold, *calendula officinalis*, a spreading plant about a foot high, with succulent, oblong, entire, strong-smelling leaves, is still to be found in country gardens. The common marigold was once used in cookery, imparting a flavor to soups and broths, and thus has long had a place in the kitchen garden.



MARIGOLD.

Mint is a native of Europe, though found in moist grounds and wash places in this country; having strayed from fields and gardens, where it has been cultivated. The species best known are spearmint (*Mentha viridis*), common mint and garden mint. Mint, lavender, and savory have been favorite herbs with house-wives for many centuries. The leaves of mint and savory are chopped fine with sauce to eat with lamb and mutton, and the former enters into the composition of what is called mint-julep.

The gilly-flower is another favorite with the poets. Shakespeare says:

"The fairest flower o' the season
Are our carnations and streaked gillyflower."

"The lady's smock all silver white," of the same poet, is said to be the same flower. The gillyflower of Chaucer, Spenser, and Shakespeare was, as in Italy, the *dianthus caryophyllus*; that of later writers and of gardeners *mathiola*. Much of the confusion in the names of plants has doubtless arisen from the vague use of the French terms *giroflee*, *oeillet*, and *violette*, which were all applied to flowers of the pink tribe, but in England were subsequent-

ly extended and finally restricted to very different plants.

The gillyflower grows in wet places, suggesting our dentaria or crinkle root. The word is some times written gilliflower or gilloflower, and is reputedly a corruption of July flower, so called from the month they blow in. Dr. Prior, however, in his useful volume on the "Popular Names of British Plants" gives us a different version of its etymology. He remarks "that it was formerly spelt gyllofer or gilofre, with the o long, from the French *giroflee*, Italian *garofalo* (M. Lat. *goriofilum*) corrupted from the Latin *Caryophyllum*, and referring to the spicy odor of the flower, which seems to have been used in flavoring wine and other liquors to replace the more costly clove of India."

The use made of the flowers to impart a spicy flavor to ale and wine is alluded to by Chaucer in his "wife of Bath's Tale" who writes,

"And many a clove giloflee
To put in ale;"

also by Spenser, who refers to them by the name of "sops in wine," which was applied in consequence of their being steeped in the liquor.

According to Shakespeare, in his tragedy of Hamlet, Ophelia made her garlands—

"Of crowflowers, daisies, nettles and long purples."

Beisley tells us that the crowflower is the crowfoot (*Ranunculus bulbosus*), but Ellacombe says that in the time of



HEART'S EASE.

Shakespeare the name was applied to the "Ragged Robin" (*Lychnis flos-culi*). "Long purples" are the flowers of the early purple orchis (*Orchis mascula*),

which blossoms in April and May. The nettle is the royal weed of Great Britain. It stands guard along every hedgerow and road bank in the island. It is much larger and stronger than the American nettle. It would be interesting to know how Ophelia managed them.

"There are pansies that's for thoughts," says Ophelia to Laertes. The pansy is often referred to by the old poets. The name is from the French *pensee*—thought. It is the same flower as the love-in-idleness" in the "Mid Summer Nights Dream,"

"A little western flower,
Before milk white; now purple with Love's
wound.
And maidens call it Love-in-idleness."

Spenser calls by the old name *paunce* in the "Fairy Queen,"

"Sweet Rosemaryes
And fragrant violets, and Paunces trim."

And again, "The one a Paunce, the other a Sweet-briar." In the "Shepherd's Kalender" he speaks of,

"The pretie Paunce
And the Chevisaunce."

Milton refers to it as "the pancy freak'd with jet." It is the *viola amoena*, and is generally known among the cottagers of England to day as the heart's ease.

Ophelia gives her fennel and columbines to the king:

"There's fennel for you and columbines;
There's one for you; and here's some for
me."

In "A Handful of Pleasant Delites," 1584, the former is thus mentioned; "Fennel is for flatterers," etc. The plant was supposed to have many virtues, which are well stated by Longfellow in "The Goblet of Life"—

"Above the lowly plants it towers,
The fennel, with its yellow flowers,
And in an earlier age than ours
Was gifted with the wondrous powers,
Lost vision to restore.
It gave new strength and fearless mood;
And gladiators fierce and rude

Mingled it in their daily food ;
And he who battled and subdued
A wreath of fennel wore."



COLUMBINE.

The columbine is a familiar flower

among the poets. Chapman in his comedy of "All Fools," 1605, says :

What's that ? a columbine ?
No, that thankless flower grows not in my garden.

The "Caltha Poetarum," 1599, speaks of it as "the blue cornuted columbine." It was emblematic of forsaken lovers.

"The columbine in tawny often taken,
Is then ascribed to such as are forsaken."

The rue was the symbol of sorry remembrance. It was also called "herb of grace," a name appropriate on Sunday, as Ophelia says. It was specially in repute as an eye salve. See "Milton's Paradise Lost":

"Then purged with euphrasy and rue
The visual nerve, for he had much to see."

F. M. COLBY.

PROGRESS OF THE EMANCIPATED RACE.

WHEN we remember that the first-born of the freedmen have but recently attained their majority, they are to be congratulated on what they have accomplished by way of Educational and Christian advancement, that which exalteth a nation. It is not possible in one brief article to show all that is worthy of commendation; but by directing attention to what a few colored men of Baltimore have done, and are doing, for themselves and their brethren, may cause some one to study more closely into the results of the different and peculiar organization through which they are working. "By their fruits we shall know them."

Baltimore has 33 colored Churches, viz: 9 Methodist Episcopal, 7 African Methodist Episcopal, 1 African Methodist Episcopal Zion, and 1 Methodist Presbyterian — 18 in all of the Methodist persuasion, 7 Baptist, 3 Presbyterian, 2 Roman Catholic, 2 Episcopal and one Christian. These are presided over by 30 colored ministers, one colored bishop, and three white priests.

There are in the city two colored law-

yers, six doctors, two dentists and a number of teachers and other professional men, and one woman, Mrs. Frances Harper, a native Baltimorean, is in the lecture field. There are 18 Masonic lodges, about the same number of Odd Fellow, and a number of temperance lodges. The I. O. Good Samaritans and Daughters of Samaria own a large public hall and publish an official organ. "The Galilee Fishermen" also own a public hall. There is an Episcopal convent, engaged in teaching poor children. There are other charitable and educational enterprises, with presidents and professors; but the laboring class is, and must continue to be, the bone and sinew of every nation and people, and is creditably represented in Maryland by the emancipated race.

JOHN H. BUTLER.

As a representation of the working colored men we present John H. Butler, a public-spirited, enterprising citizen. There are probably a few colored workers who have accumulated more wealth, but none perhaps who have shown as great business enterprise in advancing

the interests of the race. He began his upward career by mounting the ladder as a hod-carrier, and kept going up till he reached the President's Chair of the Douglas Institute.

Mr. Butler was born in 1825, in Prince George County, Maryland, on the Patuxent river. His father became a freeman, and finding no opportunity for schooling his children in the country he moved to Baltimore, when young Butler was about fourteen years old. Here the lad attended a colored school during the winter for five consecutive years, learning to read, write and cipher, the sum total of his education. He worked at hod-carrying, off-bearing, and brick making in turn, and did his work so satisfactorily that he could always find employment; and soon got the responsible position of chief porter in the wholesale house of Tiffany, Ward and Co., which place he held till the dissolution of the firm, after the breaking out of the late war.

When the Government resolved on trying the experiment of organizing regiments of freedmen for the army, General McBirney was sent to Baltimore for that purpose; and he at once called on Mr. Butler to assist him in the somewhat delicate enterprise. He rendered such valuable service in the work of enlistment, that his name was prominently presented to the War Department for a Captaincy in the Seventh Maryland United States Colored Regiment. Secretary Stanton replied that he had no authority to make such appointment, but would do the best in his power for

Butler, and so commissioned him sutler of the 7th, which position he held till the close of the war. The 7th went through many hard fights, from Florida to Richmond. On returning to Baltimore after the war Mr. Butler's first act was the organizing of a colored joint Stock Company, for the establishing of a Head Quarters for the colored people of Baltimore. He soon raised the required stock and was made president of the Corporation.

The building known as "Newton Institute," Number 11 Lexington St., and which had been used as a hospital for

wounded soldiers during the war, was purchased for about \$20,000, and was re-christened "Douglas Institute," in honor of Fred Douglas. The building contains two large halls, one of which is occupied five nights in the week by the Colored Masons, Odd Fellows and Templars. The other hall is an armory for three colored military organizations. Mr. Butler is



JOHN H. BUTLER.

still president, and holds a controlling influence in the company, and devotes his time principally to the management of the property, which, from its central location, has become very valuable. Mr. Butler, took a very prominent part in organizing colored schools in Maryland, and built, or aided in building, about one hundred schoolhouses.

He is also an earnest Sunday School worker, and last but not least, assisted a few months ago in the organization of a free Kindergarten, the first colored school of the kind in Maryland.

It is established in one of his build-

ings, and is conducted by Mrs. A. E. Jones, assisted by Miss Edmonia Hedges, who has charge of the musical department. Mrs. Jones, who was trained in one of the Kindergartens of Boston, is an intelligent, earnest teacher and temperance worker. There ought to be such a school in every locality where there are children ; and the "American Kindergarten" should be read by every wide-awake educator.

JOSEPH S. DAVIS.

The second colored man who has been admitted to the practice of law in Maryland, was born at Chatham, Va., in 1860. At the age of fifteen he entered Hampton Institute and graduated in 1878, paying his way by working on the school farm, and in the students dining hall. On graduating he engaged in teaching, and for two years held the position of Principal of the colored schools in his native town. In 1881 he resigned to accept a position offered him in the General Land Office at Washington, as examiner of titles in contested land cases. While thus employed every spare moment was assiduously devoted to the study of law, and in three years he completed the prescribed course laid down by the Howard University, and received the diploma of that Institution.

In 1885 he was admitted to practice in the Supreme Court of the District of Columbia ; and resigned his government clerkship to engage in the practice of his chosen profession. Finding an opening in Baltimore he made applica-

tion and was admitted to practice in the courts of Maryland.

His contributions to the press, and his public addresses, show him to be an able advocate in the cause of justice, especially in helping to elevate his race by securing to them their rights and privileges under the amended Constitution. The following extracts from one of his public addresses show the animus of the man :

"The history of the colored race in America is too well-known to need any rehearsal—the story of their servitude and wrongs for 250 years will doubtless read like an incredible romance to coming generations. The great question now with us is, are we, as a distinct

race of people, playing well our part in the great drama of industrial, educational and moral advancement? It is hardly to be expected that in two decades of limited freedom we should stand in the full sunlight of prosperity ; but are we surely and steadily approaching that goal? Our career as politicians is a sad one. Let us therefore leave all po-



JOSEPH S. DAVIS.

litical parties to take care of themselves, and give our time and attention to industrial pursuits, and thus achieve what political preferment can not give.

"And for heaven's sake let us cease to make merchandise of our rights, our vote, the right preservative of all rights, and let us not barter with the unscrupulous politician. Whatever you are, be so from principle, and from convictions of right, and you will reap the reward of a generous confidence in you from others. There is no use in dis-

cussing evils unless we have a remedy. The Irish have their Land Leagues; the Dutch their great brewing and building enterprises; and the Jews by their mutual aid system enable the poorest of the Children of Abraham to become rich in this world's goods; in short this principle of mutual protection seems to pervade all classes, except the colored race in America.

"There are many wrongs to be righted and grievances to be redressed which can be successfully accomplished in no other way than by organized effort. The Brotherhood of Liberty shows that the spirit of agitation on behalf of justice and liberty is neither dead nor sleeping among the colored people of Baltimore. It shows that a few, at least, realize the great truth that he who would be free *must himself strike the blow*. Trusting to the justice of our cause we propose to make ourselves heard and felt.

"The tongues of Sumner, Wm. Lloyd Garrison, Wendell Phillips and Lucretia Mott are silent, and their mantle must rest upon the shoulders of men and women of our own race. John Brown's body lies moldering in the ground, and Lincoln was laid low by the assassin's bullet. Many a brave soldier gave his life for universal liberty and we will be derelict of duty if we fail to labor unitedly in carrying out the principles of justice and liberty for which so many noble lives have been sacrificed.

"One of the grandest principles of civilization consists in the right of every man to choose his own associates, and to guard with scrupulous fidelity the sanctity of his own fireside. Riding in the same car, stopping at the same hotel and dining at the same table, no more involve the question of equality than breathing the same air, living in the same country or serving the same God. We are accused of propagating a large class of criminals. In proportion to our numbers and opportunities we do not produce a larger class than any other race. Infringements of rights will drive

men to deeds of violence. Let us write upon our banner the simple motto, 'Our cause is just,' and go forth to resist oppression wherever found, and to lift up the people to a truer moral, civil, and intellectual manhood."

REV. HARVEY JOHNSON.

The South furnishes few, if any, better representatives of true progress of the emancipated race than Rev Harvey Johnson, pastor of the Union Baptist Church of Baltimore. He was born in Fauquier County, Va., in the bonds of slavery. Like many of his race he is somewhat sensitive on this subject—would fain forget it. "I can only think of it," says he, "with a righteous indignation." Like Paul he is truly forgetting the things that are behind and reaching forth to the things before, and pressing toward the mark for the prize. He is progressive in the highest sense of the term. At an early age he became a freeman in the Lord, and with a fearless courage, and undaunted perseverance, has gained a well-earned reputation as an evangelical leader, that many in far more favored circumstances would be proud to possess. He worked his way up by his own efforts, and is a graduate of the Wayland Seminary, Washington, D. C. He accepted a call as pastor of the Union Church in October, 1872. It then had a membership of about 250, and now has nearly 2,200 being the largest church in the State. And this is not all, for it has "swarmed," so to speak, some half dozen times; that is, has established six missions and independent churches, all large and prosperous, and in which many of its former members are now laboring. This wonderful success may be attributed in part to the pastor's executive ability, and indomitable energy as a worker; but more, doubtless, to his true devotedness to the Master, and implicit trust in His promises. He does not suffer himself to be shackled by the creeds and opinions of men, but reads and thinks for him-

self, and seeks by every means to make men better. He invites Methodists, Presbyterians, Disciples—any one that claims to have a message from God, to occupy his pulpit, with no fear of losing his flock. He only desires that men and women shall rejoice in the liberty where with Christ has made them free; then they are privileged to worship wherever they choose. He is an ardent temperance worker, and is connected with several benevolent and humanitarian institutions, and is truly a power for good among his people and in the community at large. He was the originator of the Baptist State Convention, and is the father, and was made the first president of "The Mutual United Brotherhood of Liberty, of the United States of America," the preamble of which reads as follows :

"Whereas, It is a Scriptural truth that God made of one blood all nations of men to dwell on the face of the earth, and,

"Whereas, It is equally true according to the Declaration of American Independence that all men are endowed by their Creator with certain inalienable rights, and that among these are life, liberty, and the pursuit of happiness, therefore—

"Resolved, That it is the solemn duty of every man to seek to maintain those rights ; and to that end be it further—

"Resolved, That we band ourselves into a body, to be known by the name—, and that the avowed purpose of said Brotherhood shall be to use all legal means within our power to procure and maintain our rights as

citizens of this our common country."

Their consulting counsel is a shrewd, able attorney ; and some important cases have already been satisfactorily prosecuted. The Brotherhood, which is only in its second year, will no doubt become an important organization.

Harvey Johnson is emphatically a practical man of large executive ability. His sermons, to which we have listened, are plain, common-sense talks that children can comprehend, yet possessing deep thought and originality. He evidently does not seek to make a display of his knowledge, but to convince

his hearers of the truth and persuade them to turn away from the evil. If every minister in Baltimore had been instrumental in the conversion of an equal number, the "Monumental City" would unquestionably be a very desirable place for a home. As it is, the influence of such teaching must in time have an effect upon the people.



HARVEY JOHNSON.

PROFESSOR SNOWDEN.

Prof. T. B. Snowden was born October, 1843, at Westminster, Md. His father was a slave but purchased his liberty, and became a minister of the gospel, in which capacity he labored for sixty-two years, and died respected at the ripe age of eighty-four. The subject of this sketch though free-born, had very limited educational advantages till twenty-one years of age, when he went to work with the design of educating himself. Attended school for five consecutive winters, and then engaged in teaching, first in Charles County, and

then erected a school-building in Westminster and taught in it for about a year. In 1870 he entered the Howard University at Washington, and was graduated in 1877, working his own way through. Then after teaching one year he entered the School of Theology in the Boston University, and was graduated with the degree of B. D. in 1881. He took a post-graduate course of one year, when he was elected professor of Systematic and Practical Theology in the Centenary Biblical Institute of Baltimore. He still holds the chair of Theology, and is also financial agent for the Institute. Prof. Snowden has acted as delegate to several Republican State Conventions; and is a regular contributor to a number of periodicals and magazines.

The Centenary Biblical Institute, which was opened in 1872 by Prof. J. Emory Round, is doing a grand work by educating the colored youth of both sexes. It is doubtless one among the best Institutions of learning in the South. It is a three-story stone edifice, delightfully situated on Edmonson and Fulton Avenues, and contains thirty-seven rooms. There is a Printing Department which publishes *The Conference Journal*, and *The Educator*, an illustrated magazine for the School and Home; both of which are very creditable publications. The whole number of students now under instruction is 263.

The Institution is largely dependent on private generosity to carry out satisfactorily all its enterprises. Prof. Snowden in one of his appeals says: "If rich men had as great desire to bless human-

ity as they have to hoard up their millions, needy educational institutions would not be embarrassed long in their work. It is not only foolish but wicked for men to hide away their gold and silver, which they do not need, while men and women are perishing all around them for want of knowledge and the bread of life, that a wise use of their money might bring to them."

The Centenary is a Methodist plant, but of a liberal kind, designed to bring forth good fruit. If students from other theological schools would take a post-graduate course in a Methodist Institution, and Methodist students would

gather in like manner from other denominational pastures, young ministers would go forth with broader views of Christianity, and better armed and equipped for the contest with evil. A skilful general closely scans the entire field, and presses into his service every available force, seeking to make allies of the hostile tribes of the land. It is not reasonable to sup-



PROFESSOR SNOWDEN.

pose that John Wesley, Calvin, Luther, Fox, or any other man had learned all there is to be learned in the Bible, and that ministers for all time must blindly walk in the ruts made by these zealous reformers. Exchange of pulpits and exchange of thought in the denominational training schools will make skilled, master workmen.

The Centenary, under its energetic and efficient President, Dr. Frysinger, with his nine able assistants, is doing a good work in sending forth reapers to gather in the colored sheaves from the

near and distant fields of God's heritage. It is an enduring monument to its founder, and a blessing to the race.

DANIEL R. WILKINS.

The Second Christian Church of Baltimore, though in its infancy, bids fair to play an important part in elevating the colored race. Among its membership are some very intelligent, earnest Christian workers; and its pastor, Daniel R. Wilkins, is a worthy example of the trite maxim, "Where there is a will there is a way." He was born a slave, March 1, 1852, in Wadesboro, Ky. When five years old he was taken to the county seat on court day, and sold by public auction to the highest bidder, H. D. Irvan, a merchant of the place. The little slave never again saw or heard of his parents till President Lincoln's proclamation made him free, when he at once set out in search of his mother and father. After a long hunt, he had the good fortune to find them at the home of a sister in Concord, whither they had wandered hunting for their scattered children, two of whom were never found. To assist in securing a home for his parents, who were somewhat infirm, was his next concern. Then an ardent desire to obtain an education so impressed him that he set out on foot, guided by the North star, and trusting in God, to find a school where he would be permitted to attend. His available assets consisted of pluck, energy, faith in God, and a blue-backed spelling book, and they carried him through. In Jackson County, Ill., he found a colored school, and

an opportunity to work for his board, which he gladly accepted. The next summer he hired out, and soon after leased a few acres of land and fitted up a little cabin, and sent for his folks. He again attended school during the winter, and worked hard the following summer to get his parents comfortably situated in their new home. Learning that there were good schools in Kansas where colored youth enjoyed equal privileges with whites, he accepted an offer of his fare to Franklin County, for driving an ox-team, in a moving outfit. Here, while diligently prosecuting his studies he

heard the gospel preached by Elder Skeeles, and became partaker of its promises. He at once began to exhort his associates to accept Christ. His next move was back to his native State. Being strongly impressed with the conviction that his life-work was to preach the gospel, and desiring the best qualifications attainable, he entered the Bible College of Louis-



DANIEL R. WILKINS

ville, where he worked his way through, graduating in 1871. He labored eight years in his native state as pastor at Paducah, and as State evangelist.

Mr. Wilkins is a diligent student of the Bible, a clear, logical reasoner, and a fluent speaker; in short, "a workman that needeth not to be ashamed." He expresses his convictions of truth very positively; and his sermons abound in original and novel propositions, well calculated to incite attention, thought and reading. The following are extracts from a discourse we heard him deliver on "The duty of praising each

other, and keeping the ordinances." He said—"A love of praise is natural to all,—is God-given, and hence is not to be condemned. God demands praise from all his intelligent creatures; and expects us to praise and encourage each other, and thus incite each other to good works. The little child knows when it is deserving of praise, and seeks it and expects it; and if it be cruelly withheld the best feelings of its nature are crushed out. It was designed by our Creator that we should go through life leaning upon each other. We need each other's help, need encouragement, need occasionally to hear 'Well done, good and faithful servant,' when we have done something worthy of commendation. There is a difference between well-earned praise, and flattery. Flattery for vain accomplishments, is like the man behind the bar who deals out colored-liquid damnation. Praise for meritorious work will encourage to greater efforts. Better take the chances of killing one with the big head, than to crush out the life by failing to recognize deeds of love and acts of kindness. Many a woman has toiled day after day and year after year to add to the happiness of her husband, and at last has gone to a premature grave, broken-hearted, for lack of justly merited praise by some little tokens of kindly recognition from him who promised to love and cherish. A careful observance of the little, common courtesies of life will make of our homes a heaven on earth begun."

In speaking of the ordinances he declared that they are violated very generally by the Churches. "The Pope of Rome," said he, "assumed the right to change God's laws and ordinances; and reformers, instead of going back to the plain teaching of the Apostle, have retained many rites of the dark ages, believing them to be scriptural.

"To show you that I am fully convinced that the churches have departed from the plain teachings of God's law I make this proposition in good faith. I have

in the West a little home which I labored hard to obtain; and have here a little library which I prize very highly, but I will freely give them both to any one who will show me the passage of scripture where an awakened sinner cried out 'What must I do?' and was told by an inspired Apostle to *pray or be prayed for*, for the forgiveness of his sins. 'The effectual fervent prayer of the righteous man availeth much;' but we have no right to ask God to save us through prayer, while refusing to comply with the conditions laid down in his word; no right to expect Him to change the established law of pardon to suit our notions of propriety. When he tells us to do a thing we have no right to say, there is no virtue in that, and that it means something else. Peter said to those who believed his preaching, 'Repent and be baptized for the forgiveness of sins.' Paul told the unbelieving jailor, 'Believe on the Lord Jesus Christ; and then baptized him.

"Ananias, divinely commissioned by the Lord, to tell Paul what to do, did not say a word to him about faith or repentance, as he already believed and had repented, so he gave him the next step: 'Arise and be baptized and wash away thy sins, calling on the name of the Lord.'"

REV. C. HEDGES.

The subject of this sketch was born at Chester, N. J., in 1843. Like Paul he was free born, not a Pharisee, the son of a Pharisee, but a Presbyterian, son of a Presbyterian. Having been reared in the faith, he early became a devoted follower of the Master, and an earnest worker in the vineyard. At the age of sixteen he was graduated at the Chester Academy. Soon afterward his parents moved to Newark, N. J., where he learned the trade of smelter and assayer of gold and silver, at which he worked for several years with the firm of Alling Bros. & Co. During this time he was an active member of the Y. M. C. A., and a Superintendent of a Sabbath

school. He aided a younger brother to take a college course at Lincoln Institute, Pa., and afterward was graduated himself at the same institution. This shows the character of the man.

Mr. Hedges preached at several places while a student, and assisted in the organization of a church at Utica, N. Y., and at Springfield, Mass. For five years he was pastor of Grace Church, Pittsburg, which he organized, and which was the first colored Presbyterian Church west of the Alleghanies. He came to Baltimore in 1873, and served as pastor of the Madison street Presbyterian Church for seven years, and was then installed pastor of Grace Church, his present charge. Though not an ex-slave his heart and hands are in the work of lifting up those who were kept down in servitude and ignorance. He was largely instrumental in organizing Knox Church of Baltimore, the second Presbyterian Church in Belair, and Zion Col-



REV. C. HEDGES.

ored Church at West River. In connection with Grace Church he has a parochial school, which in a quiet, unpretentious way is doing a noble work. His Sunday School has a corps of earnest, able teachers; and we noticed at its close that every child remained to hear the preaching; so different from many of our aristocratic churches.

The pastor's sermon, to which we listened, was from Christ's words.—“Love one another, as I have loved you.”

“Without this love,” said he, “we can not please God and perform acceptably our Christian duty. If we desire

the blessings of God to rest upon our labors we must place ourselves in a position to become the recipients of his promises. ‘If ye love me, keep my Commandments.’ God’s word is of very little good to us except as we read it, hear it, and practice it in our lives. We may not be called on to lay down our lives for the brethren, but we are called upon to love them all—to love even our enemies, and to pray for them. “He that hateth his brother is a murderer, and no murderer hath eternal life abiding in him.” “He that saith he loves God whom he hath not seen, and hateth his

brother whom he hath seen is a liar.” May God help us to love one another and bear each other’s burdens, cherishing none but kindly feelings even toward those who have wronged us.”

Such teaching, if practiced, will make the world better. If the churches would cease their strife and be one, as Jesus prayed, then the world would believe. The colored denomina-

tions seem to come nearer this desired unity than those of the whites. Why should there be bars to separate God’s people? John tells us he saw a great multitude of all nations and tribes praising God. There is no account of separate heavens for the different nations, nor for high church and low.

Mr. Hedges’ religion is not confined to the pulpit. He carries it into his home, where it has left its impress. His three daughters are all Christian workers, and his son, Charles Sumner, is studying for the ministry.

Though the colored churches of Balti-

more have done a commendable work, there still remains much to be done. Of the 570 convicts in the Maryland Penitentiary more than half are Africans—so classed. It is true that a Chester white, with one-sixteenth of Berkshire blood, would not be called a black hog if he had but a few black hairs, but the “color line” of humanity is not so reckoned. The white man is mixed up and represented in more than one way among these convicts, however much the fact may be sought to be avoided by pretended economists. There are white men, who would fain be called honorable, who instead of trying to make better citizens of the blacks that are still fettered by ignorance and poverty, hire them to do *their dirty work*—really criminal offenses—and pay them with poisoned whiskey. We have witnessed a little of this kind of training preparatory to voting.

Under such circumstances it is surprising that there are not more colored tramps and vagabonds. Judging from the work being done by the churches, the schools, the temperance organizations, and the Brotherhood, with its learned counsel, we predict a falling off from the colored prison roll. More orderly, better organized Sunday schools are seldom seen, than some of the colored schools of Baltimore.

We noticed but one thing to be criticised in their meetings. The sexton in one of the large densely crowded churches did not understand, or failed to perform, his duty, by allowing it to get so intensely hot and close that we were tempted to speak out in meetin’ in the language of the immortal writer of “Oads,”—“Oh Sextant, give us a little fresh air!”

To be honest with all allow me, in closing these hasty sketches, to say that they reveal a state of things which suggests that it would be well for some of our white folks to look to their laurels, lest they be beaten by the ex-slaves in the race of true progress.

PLEBEIAN.

WHY?

Why does the fairest of roses
 Bewray in its heart a thorn?
 Or why is the dearest pleasure
 So oft of a sorrow born?
 Why do the rose-tinted petals
 Hide in their dew-drop a tear?
 And rainbow bright of hope appear
 In the cloudy sky of fear?
 The rose, but a type, a symbol
 Of love, that lovelier appears
 When shedding its rare, sweet fragrance
 To brighten earth’s thorns and tears.
 And since Life’s sky must be clouded,
 Thorns pierce, and the tear-drops fall,
 Let rose of Love in your garden,
 Life’s dearest and best recall.
 Let it brighten the sky o’er clouded,
 Let it shine in tears’ dim mist;
 And lips that murmur repining,
 Be wreathed in smiles as Love-kissed.

CALLIE L. BONNEY.

SOME DEFINITIONS.

Labor is life.—*Carlyle*.
 Negro.—The image of God cut in ebony.—*Fuller*.
 Irony.—An insult conveyed in the form of a compliment.—*Whipple*.
 Fanaticism is religion caricatured.—*Whipple*.
 Art is the perfection of Nature.—*Sir Thomas Browne*.
 Censure is the tax a man payeth to the public for being eminent.—*Swift*.
 Architecture.—Frozen music.
 Gratitude.—The memory of the heart.
 Hope.—The blossom of happiness.
 Grief.—May be joy misunderstood.—*E. B. Browning*.
 Idleness is the key of beggary.—*Spurgeon*.
 Evil is obstruction; good is accomplishment.—*Margaret Fuller*.
 Prayer is the key to open day and the bolt to shut in the night.—*Taylor*.
 Education is the knowledge of how to use the whole of oneself.—*Beecher*.
 Woman is the Sunday of man.—*Michelet*.
 Dictionary, the exchequer of words.—*Disraeli*.
 Laughter.—’Tis the poor man’s plaster.
 Men.—Children of a larger growth.—*Dryden*.

A. L. R.



HEREDITY, NOT FATALISM.

IN the psychological order heredity is an influence; it is not a fatality. It penetrates the very center of our inner being by our instincts, race characteristics, physiological impulses and enticements. But, save in morbid cases, it does not so dominate the moral personality as to dispossess it of itself and to create irresponsibility. Yet, although it be only an influence, or rather a combination of influences, heredity ought to be guarded with the utmost care, combated and repressed as far as possible, that it may not become too heavy a weight upon the life of our successors. It creates between the generations a law of solidarity which doubles our duties toward ourselves by adding those toward our descendants. We are responsible in a certain measure for them. A man may compromise the moral soundness of his children or his grandchildren in many ways, not only by a veritable and involuntary folly which has many a chance of transmitting itself, but by some germ of mental malady which he should have effectually combated; by marriage consummated in violation of the laws of a sound physiology; by habits of intemperance which produce profound perturbations, and, as it were, the anticipated depravation of the child conceived under such conditions; it may be by excess of toil producing

fatigue of the brain; or by a too complaisant culture of eccentric sentiments; by a habitual exaltation or melancholy, in which one may be placed, like Hamlet, to sport with folly. It is cause for trembling to think upon all the divers forms of responsibility which weigh upon us in regard to the future history of our race. A vice, a *penchant* contracted, may have a considerable reverberation in that future which we shall not personally know. And, in like manner, good habits, a relish for noble and pure sentiments, a lofty cultivation of the mind, and an assiduous discipline of the will, may modify most happily one's nature, even the temperament which is transmissible. There is then a power of transmitting evil which depends upon ourselves, a sort of original sin, physiological or instinctive, which we may transmit diminished or enfeebled. Ancestors who shall remain unknown to their descendants, and who themselves shall never know these, the men of each generation, are not thereby the less bound in regard to them by the laws of justice and charity. It is absolutely necessary that this class of considerations shall enter into our moral education. We have good reasons for saying that amid all the influences which affect man one of the most powerful is *the dead*. One long since passed away

weighs upon us. It depends upon us that the present, which we are fashioning, shall weigh with a less heavy weight upon our descendants, or that, at least, we make the task less difficult than it has been made for us of ameliorating, as far as that is possible, everything around us, and the moral nature within us.

Without denying any of these influences we have looked them in the face, taken their measure, and after having marked out their place in life we have essayed to limit them. We have endeavored to prove that there is in every living being an element of individuality which escapes the law of heredity, and which in man exalts itself to personality. The making man free is the end of life. Man is then something more than the fragile product of the interaction of commercial forces. He is a being distinct from every other being, and capable of indefinite development by conscience and liberty. Despite all the fatalities which we encounter from without or which we bear within ourselves, the biologic school has never succeeded except by tricks of logic and analysis in disembarassing itself of this personal power. This element, irreducible into any other, manifests itself in every free act, which is a protestation against the law of heredity, which suspends or suppresses it in all the really moral circumstances of life, which commences new series of phenomena not foreseen, which, in fine, creates responsibility by rejecting the too facile excuses of a lazy fatalism. It manifests itself in education—that which we give ourselves, and that which we receive from others; which last is a double act of volition, the action of another's will upon our will. It shows itself in the formation of character, which is in part the work of the man, the expression of his moral life, the living history of his struggles and his trials. It has its part in the institution of privileged classes, in the selection of the courage or the merit which founds them,

and also in the decline which drags them down to ruin, and in which it is rare that there are not some grave faults or failings to note in those who compose them. Finally, the most undeniable manifestation and the most notable of this element of human personality, its social revelation, is the very history of progress. Heredity all alone explains nothing but the transmission of an acquired state; the most considerable collection of phenomena of which it can render account is civilization, that is to say, as it has been well-defined, the *balance-sheet of a society at any given moment*, what it has that is solid, fixed, in store, in a word, of ideas, of sentiments, of institutions, its industrial capital, scientific and moral. Heredity is a power of stability, of conservation, not of acquisition; it is the instrument *par excellence* of civilization; it is not the faculty of progress. That which explains progress, or the contrary, that is to say the acquisition of a new state, of a new style of art, of industry, of science, is the effect of each and all, determining a forward march, a movement. It is a grand initiation which has succeeded. The civilizations which no longer advance are those which are saturated to excess with heredity, with tradition and with routine. So soon as effort stops, mobility and life cease, stagnation commences, decadence is near at hand. The role of these two principles is thus sharply marked. In the intellectual and social order heredity conserves; it is liberty which creates in the struggle for life. The future is for the individuals and the people who know how these two forces unite, and harmonize them in a durable action—the initiative faculty, and respect for the past.

TRANSLATED BY THE LATE J. G. WILSON, D.D.,



SMALL POX.—We know almost nothing of that mode of curing disease called homeopathy; but we have observed that many physicians of this school are re-

markably successful when dealing with either cholera or small-pox. They rarely lose a case of the latter, and, under the more skillful of their practitioners, the patient comes through that fearful ordeal, not only without disfigurement, but with quite as good, or, as beautiful complexions, as they had before being attacked by the disease. Dr. Wm. Wesselhoeft, of Boston, more than twenty years ago saved his patients from the cruel pitting by keeping their faces covered constantly by soft, double white linen, wrung out of alcohol and water. This was a most reasonable mode of procedure, since the observations of several eminent physicians have agreed that it is the *light*, which acting on the pustules, causes the pitting; and white reflects the rays of light (as black absorbs them), and alcohol applied to the skin

cools, by causing rapid evaporation.

It is well to know these things in time. As long as the poor and ignorant live amid filthy conditions, such as obtain in the French quarter of Montreal and in some parts of our large cities, so long the intelligent and cleanly may, if exposed, be subject to the disease, and almost any woman but a mother would as willingly die as recover with disfigured looks.

We know that in small-pox although the pustules cover the entire body only the face and the region about the ears is 'marked,' because these are exposed to the light. A well-ventilated room, as little light as is consistent with this, and a cool temperature are most desirable. Watch the sufferer continually to prevent any scratching of the face, which will surely cause disfigurement. X. V.

DIABETES.*

TWO kinds of this disease are recognized: *diabetes mellitus*, or that with sugar in the urine, and *diabetes insipidus*, or that without sugar. The former is the more common and serious disorder. Both kinds are accompanied with profuse discharges of urine.

The *causes* of diabetes are not well-defined, although it is clearly enough ascertained that the disturbance of the renal functions that produces it is an indication of a lowered vital tone of the body, resulting from nervous enfeeblement. Whatever will weaken the organism in general, such as sudden exposure to cold or dampness, excessive indulgence in alcoholic liquors, high-living, sexual abuses, melancholy or prolonged grief, excessive labor, severe injuries in the back or head, rheumatism or gout, etc., will predispose to a diabetic attack. If sugar is found in one's urine it does not follow that he has diabetes, as a healthy person may sometimes have a considerable quantity temporarily, and it often

appears therein as an accompaniment of catarrh of the stomach; but if with its appearance there is an abnormal discharge of fluid that persistently keeps up, the diagnosis is rendered easy.

Symptoms.—The early stages of the ailment may not occasion anxiety, the patient thinking that he is troubled with indigestion or a temporary nerve disturbance. There is usually constipation of the bowels or irregular appetite and a desire to drink. At length it is noticed that the visits to the water-closet are more frequent than usual, and the quantity of urine voided is larger. As the disease proceeds the symptoms become more severe, the skin feels harsh and dry; there is a sensation of heat and weight at the stomach; alternate chills and flushes of heat are experienced, and the patient is very low-spirited. All the symptoms go on steadily, increasing in severity; the gums become red, swollen and bleed from slight pressure; the taste is depraved; the tongue foul and red at the edges; the strength declines, and the appetite that

* Right of re-publication reserved.

was previously voracious at length gives way ; the lungs become swollen and the pulse quick and weak.

The presence of sugar in the urine, when considerable, is readily detected by color, smell, etc., but its quantity can only be known by chemical tests. There are cases on record in which the discharge of urine reached in a day the great amount of six gallons, for which the quantity of food and drink seemed totally inadequate, and thus showing a great constitutional waste. In the average case the discharge may vary from four quarts to ten. Recovery from *diabetes mellitus* is quite rare, although the percentage is much greater than in former years. When it occurs in early youth the prospect is most unfavorable, as it indicates organic defects that may not be compensated for or corrected by any of the systemic functions. In adults, especially those in middle life, if there be no serious complication with other diseases, diabetes may run a long course ; but if the patient be afflicted with some malady of the heart or lungs it is likely to reach a fatal termination in a few weeks or months.

Treatment.—This may be summed up in two words—suitable nourishment. All the drugs of the schools are powerless to arrest the progress of the disease, although many are suggested by physicians of experience as palliative of certain of the more distressing symptoms. Bromine is claimed by many as useful in reducing the product of sugar and the quantity of urine. And opium and phosphorus are advised to mitigate the nervous irritability. As the disease is characterized by an excessive waste of nutritive principles, the chief object of the treatment should be to supply food of a nature that the digestive system shall be able to compensate for the loss, and those elements be withheld that contribute to sugar production. Normal blood contains a small percentage of sugar, from 12 to 33 per cent. of its constituents, which is appropriated by different

tissues. Its principal use appears to be the preservation of the heat of the body. The sugar-making or *glycogenic* function being abnormal it has been a subject of study in treating diabetic patients to select a diet that does not contain a large proportion of saccharine matter. Starchy foods are therefore to be eaten very sparingly, and those fruits and vegetables avoided that are rich in sugar. A strictly animal diet has been tried in many cases, but it can not long be tolerated, conducive as it is to feverishness of the stomach and intestines, and to complete loss of appetite. A mixed diet is advised, but we think that the proportion of flesh-meats should be small. Bread, in which the gluten of wheat is a large constituent, and fruits and vegetables, like cabbage, spinach, celery, lettuce, cauliflower, carrots, are suitable. The intense thirst should be met as far as it is possible with the exercise of discretion. Natural mineral waters that contain sodium and potash in moderate quantities, as those of Vichy, Carlsbad, Apollinaris, etc., are useful. Exercise is important, the patient being out of doors as much as he can be ; and bathing—the sitz bath and wet-sheet pack—with rubbing or massage, serve to reinvigorate the depressed organs.

H. S. D.

FAT AND FORTY.

“ Fat and forty !”—that’s what I am ;
 I never drank a “ cocktail ” dram ;
 Ne’er a bit of the weed I chew,—
 I s’pect that’s why I’m never “ blue.”
 My hair is full and fair’s a lad’s,
 My eyes are clear and keen’s a shad’s ;
 Never a sick day have I known,
 From cradle days to forty grown.
 I’m hale and hearty, thro’ and thro’,
 With aches and pains I’ve nought to do ;
 An arm that’s strong and steady hand
 I always have at my command.
 The reason for this is quite plain,
 I’ve told it over and over again ;
 I let alone the poison stuff
 That kills at sight, and *sure* enough.

P. L.

THE SPARE ROOM.

"NOW, John."

Little Mrs. Beecher was guilty of button-holeing her husband, just as he was all ready to go to his office. "One moment, dear."

He didn't say "Hurry, then." He was too astonished, as she never hindered him, when once the coat was on and the hat in hand. "Bless her for it, she is a woman of sense," he had always said to himself on his unimpeded way. Now here she was doing just like other women. What could it mean?

"You say you are willing I should arrange the house as I think best?"

"Perfectly."

"That's all; good bye. I won't stop you again."

"Good bye, dear."

The little woman stood a moment lost in thought, just where he left her. Then she started with a laugh, "That's the last time I will ever listen to the tempter. The spare room shall be the back chamber."

Running up-stairs, she just stopped to kiss Roly-Poly, the baby, and give him a toss, returning him to Adaline's care who had him in charge, as it was Saturday. Then she hurried off.

For the next two hours, there was no busier woman in all Briarfield than Mrs. Beecher. A neighbor looked in and called her to the head of the stairs, where she leaned over, her pretty brown hair all tied up in a sweeping-cap.

"My! you ain't settled yet?" exclaimed the neighbor.

"All to rights except the spare room," called Mrs. Beecher over the railing.

"I always fix that first in my fall cleaning," observed the neighbor. "My! supposing anybody should come and find you all sixes and sevens!"

"I should rather be caught by chance company than to have my family find me napping," laughed little Mrs. Beecher.

This was such a new idea that the

neighbor had nothing to say, only, "I'll drop in again when you ain't so driven," and Mrs. Beecher was free to hurry back to her "settling up" once more.

It wasn't very attractive certainly, this little back room with its one window. And all the pretty furnishings in the world could not make it a fine place. But Mrs. Beecher, bustling around, setting the bureau in one corner, putting a gay rug here and a bright sofa pillow there, sang at her work, out of a satisfied heart.

When it was all done, and the supply of clean bed-linen and towels put in the drawer ready to be arranged on the arrival of the chance company, the little woman gave a sigh.

"I hope John will like the change. I'm only sorry I kept Adaline in here so long."

But vain regrets not being in Mrs. Beecher's line, she hurried off to the large sunny room just around the hall.

Adaline was already there with the baby, wild to see her own things in the new room.

"I'm going to be perfectly happy, don't you know," she replied in a burst of confidence to Roly-Poly. "And I'm going to be awfully good too."

"Um," said Roly-Poly. Mrs. Beecher paused by the open door.

"It's the most beautiful place," ran on Adaline; "see, Roly, the sun shines always here, and I never saw a bit in the other room, never the leastest bit," she added emphatically.

The little mother's heart had a pang just then, and like a flash the pale cheeks that had greeted her at the breakfast table every morning came back to her now.

"Don't you ever tell, Roly," cried Adaline, in a stage whisper, "but I used to cry in there, and wish my papa could afford to buy a nice house where the sun danced all around. Now prom-

ise; don't you ever tell, say 'no' real loud."

"No," shouted the baby.

The tears came now into the eyes of the little woman hearing unpleasant truths out there in the hall. But there was more to tell.

"I'm a big girl," Adaline was saying, "I'm company now, and I'm going to behave nice. I wonder why people don't always do so, and give the children who live at the house all the year round, a good place. Don't you?"

"Ar-goo," said Roly Poly."

"I wonder so, too," said Mrs. Beecher, softly, with all her heart as she stole away.

"You're a wise woman," said John, when he came home to dinner, peering into the spare room, "I always wondered why you didn't take this room for the spare chamber instead of giving up that splendid sunny one to people who only dropped in once in a dog's age."

"O, John! why didn't you say so?" cried Mrs. Beecher. "There, I've been worrying, afraid you wouldn't like to be different from other people who always have one handsome room."

"I'd rather be hospitable to my own family first," said John, "and give them sunshine instead of doctor's stuffs. It's the best thing you've done in one spell, Martha. Come, there's the dinner bell."

A LOOK TO THE FUTURE.

TO a great city like New York, the old adage—"One half the world does not know how the other half lives," is peculiarly applicable. Fortunately for the half which does not *live*, but simply *exists*, kindly-hearted men and women look them up and devise ways for the bettering of their condition. Not the least of these noble devisements is the cooking-school of the present day. A school in which little girls from every rank in life, but especially from the poor and lowly, are taught how to cook so as to secure the best results for the needs of the frail body. This "high art" is of far more value to the human family than any decorative craze that has demoralized a household with dyspepsia and gout or some of their kindred.

The men and women who are bending their energies, laying down their purses, rolling up their sleeves and donning aprons as teachers, riding the hobby of "reform through the palate and stomach," advocating hygienic *Cooking-Schools*, are true benefactors; may their number increase.

There is so much said now, and said with a recklessness wholly inexcusable, about the higher education of women,

that a wrong impression is gaining ground, the bitter fruit of which the universal public will be obliged to eat in the way of a still decreasing interest in the true home. There is always room for the home-maker; there is not room for successful achievement in professional lines for one-fiftieth of the women who start out with the expectation of doing great things in the business world. Hence it is a pleasure to see the experiments of industrial schools of all kinds for both boys and girls; and especially is it gratifying to see this sagacious look to the future which is embodied in the cooking-school, where the hygienic use of food elements is practically taught.

Not only are young girls taught, but there are classes for young married ladies; in fact, older ladies are not excluded, should they be convinced of the importance of healthful diet, and reach a realizing sense of their duties in the highest sphere a woman can reach—that of being a home-maker. The New York Cooking-school (17 Lafayette Place) recently celebrated its fifth anniversary with an exhibit of toothsome dishes prepared by the pupils. The report of this

work will prove interesting to those who desire to know how to establish similar institutions elsewhere.

While the school teaches the best methods of preparing animal food, it does not teach the compounding of mixtures in which condiment exceeds food and so lays the foundation for future ailments of the stomach, if not of the entire body. The proper preparation of cereal food is understandingly taught. The graham gems and oatmeal are so delicious and satisfying that the meat dishes will cease to be considered an absolute necessity to life. Fruits and their uses enter largely into the course of study. In this direction lies much good for the workingman's family. When they have learned that nutritious and economical food can also be made desirable to the palate and pleasing to the eye, a large item in the social problems of the day will have been answered, never again to be gainsaid.

The strong points in the curriculum of this common-sense cooking-school, are economy, healthfulness, attractiveness, and the reason why—or the chemistry of food. In introducing the taste for wholesome food into the houses of the poor, the old story of the new window-curtains will be repeated. The daintily

prepared table must have clean faces and hands ; the clean faces and hands must have smooth hair and smiles ; the smooth hair and smiles, will awaken pleasant chat ; pleasant chat will create a desire for good books ; good books must have the companionship of well-arranged furniture and tidy clothes ; tidy clothes draw the wearer to church, and to careful selection of friends.

The importance of well-cooked food is largely under-rated, or confounded with mixtures which must strike terror to the soul of the goddess of health, as they certainly do the bodies wherein they are consumed.

A mistaken notion prevails to the effect that people of wealth indulge their appetites with the constant use of compounded dishes, whereas the truth is that the intelligent rich live more simply than their poorer neighbors. "I'm afther lavin' me place, miss, cuz its meself is niver ust to oatmale an apple-sass, an crame fer me brekfass, its lashin's of mate oim ust to, an its a brennin' shame til' rich folks to be a settin down to the likes of that. Oat-male an apple-sass, howly Moses !" and this insulted, abused Bridget is only one out of many who bring like complaints against their sensible employers.

A. E.

CHAINED TO A CARCASS.

AN ancient writer tells us of a man who was chained to a putrefying carcass for three days, but I am going to tell of something worse than that. I am going to tell of a good and beautiful girl who is chained to a worse than rotten carcass for life.

An English family came to America and settled in the town where I live. They had an unmarried daughter who was very handsome, and the peer of the family in goodness. The parents are of the grasping kind, and as soon as their daughters reach their teens they want them to get married, so as to lighten the expenses of the family. They do not

stop at wanting their daughters to get married, but they go so far as to court a man and compel their daughter to marry him. They thus compelled a daughter, aged eighteen, to marry an old, broken-down, tyrannical mining operator, just because he had a few dollars. But that case is not the subject of this article ; she is a younger daughter named Sadie.

One year ago Sadie was fifteen years old. She accepted the company of a young man to spend the Fourth of July at a celebration. He became smitten with her beauty and proposed marriage, which she declined, and afterward refused to accept his company. The young

man—if I can call him man—then began courting her father and mother. He succeeded in winning their “affections” and obtaining a promise of marriage. Sadie declined the bargain, but her parents said she *must* marry him. She then begged the young man not to insist on marriage, for she did not love him and she could neither be happy with him nor make him happy. The “thing,” miscalled man, could not see the point and insisted on her becoming his wife. She then declared she would not be his wife under any circumstances, and did all she could consistently do to get him to dislike her. But he had neither sense nor manhood enough to give up one who hated his very appearance. Presently it came to the point where she must either marry him or be turned upon the cold world homeless, among strangers. She then consented and the ceremony was performed, but she refused to live with him and for many nights had her younger sister with her. After the tyrannical power was again brought to bear upon her she lived with him a few weeks and then left him. After a few weeks grinding in the mills of Sheol, she resumed living with him as his wife. The couple passed a few miserable months together and one morning last August as the sun cast its golden light over the mountain’s brow, Sadie was missed and sought for, but not found. She had gone away 100 miles to the cabin of her sister, whose fate was much like her own. After a short time the thing called her “husband” left the country with the avowed intention of never returning or being heard from. Sadie hearing of this eventually returned home, but to her horror who should turn up in a few weeks but her would-be “husband?” After two more months beneath the tyrants’ lash she again consents to live with the pumpkin-headed thing in preference to becoming an outcast in the world.

Happiness is the object of life, and our every thought and action is to gain it.

When happiness is destroyed what is life? It is not worth living. Happiness can not be outweighed by all the wealth in the world. ’Tis better to take life itself than to take happiness. Who will say that Sadie’s happiness is not ruined, at least in her present condition? Do what she may it is injured to some extent for life.

Marriage is the union of two loving souls. Without mutual love a union can not exist, and therefore marriage is impossible. The ceremony is nothing more nor less than a form of public acknowledgment. All the ceremonies in the world will not unite two persons if love is lacking. If they love each other they are already united. Sadie is not in reality married, and the compulsion of her parents can not be called anything better than forced sexual crime. Nature designed that those who marry shall love, and the penalty for breaking this law is severe. Children born of parents who hate each other are a sad grievance to humanity.

Parents who compel their children to marry commit a great sin against humanity and God. They not only blast their offsprings’ happiness, but they force upon society a class of beings that are a curse to it. Their curses are unnumbered and untold. The heaving breast, the broken heart-strings, the falling tears, the pallid face, the shrunken form, the faded beauty, the injured, diseased offspring, the wretched outcast are curses in themselves. Justice is based upon the principle that we may do whatever seems good to us, as long as we do not infringe upon the happiness of others. This is the highest possible liberty that can be given to mankind. Justice demands that offenders against this be punished, or, in other words, forfeit a portion of their own liberty. No greater transgression of liberty is known than chaining a good, pure woman to a man for whom she not only entertains no inclination, but heartily seeks to avoid because of disgust. C. H. D.

HEALTH PAPERS.—NO. 2.

"BUT these ideas are unpopular." We do not deny it. What next? "It is presumption for a mere handful of people to set up and maintain theories so at variance with generally received opinions." Is it? Well, go on. "The wise and good men of the medical profession, sustained by over-whelming numbers of educated and influential minds, are much less likely to be in error than the small minority opposed to them." Indeed! Must we then accept the religion of Buddha because its adherents outnumber those of any other class, whether pagan or Christian? That these objections seem to be well founded is not to be denied. But *to seem to be* and *to be* are not always the same. The Gospel seemed to the Jewish Sanhedrim to be a great heresy. The Savior seemed to them a presumptuous blasphemer. Only a little band of humble and obscure adherents accepted his teachings and recognized in him the long expected Messiah. They were everywhere spoken against; They 'suffered cruel mockings and scourgings.' They were 'destitute, afflicted, tormented.' Does any one believe that the Gospel is therefore untrue and the holy one an impostor?

Galileo was arrested, imprisoned, and condemned to death as a heretic, for making known the true theory of the solar system. He was forced to recant to save himself from execution. His recantation was made with a mental reservation which found expression in a vigorous stamp of his foot on the earth and the suppressed exclamation—"And yet she moves." In his mind, the forced recantation was a nullity. All the learned scientists and theologians of *his* day considered his opinions both scientifically and religiously erroneous. Yet, in *our* day, all who have made themselves familiar with the subject know that they were wrong and what

he taught was, and is, incontrovertible truth.

Christopher Columbus believed the world to be a sphere, which might be circumnavigated. For this he was despised and ridiculed as a visionary fanatic. Yet he was able to prove, and did prove, the correctness of his opinions and the falsity of the accumulated wisdom arrayed against him.

Professor Morse believed that electricity could be made available for the transmission of messages between distant places. He had demonstrated the practicability of his invention as fully as his private means would justify. When he asked for a small appropriation to erect an experimental line of telegraph between Washington and Baltimore, the wisdom of a distinguished senator prompted him to say that he would not favor the appropriation of a single dollar in aid of the wild project of a crazy man.

But to-day, the world would feel it an irreparable loss if deprived for the present and for all future time of the telegraph and of its legitimate offspring, the telephone. But examples need not be multiplied. Let every man be fully persuaded in his own mind. Ignore the voice of numbers so far as it speaks contrary to enlightened convictions based on thorough investigations and clear conceptions. One, with right on his side, is better authority than a million on the side of error. Admitting that the voice of the majority is to be accepted as presumptive evidence in any controversy by no means implies that it is to be recognized as final. The question is not how many, or how few accept a doctrine, but how strong or how weak are the proofs for or against it. Many of the leading discoveries of modern times have had to fight their way to popularity through the most determined opposition, not unfrequently from the

very class of persons most benefited by them. If such proves to be the experience of a sound, national theory of health, it will be but history repeating itself. About the first thing a new-born child swallows is a dose of catnip tea. Mrs. Winslow's Soothing Syrup, or its equivalent in some other form soon follows. If the child, the youth, or the adult is sick or afraid of being sick, the first inquiry is, what drug is to be swallowed? Such is our education. The doctors and the druggists, the nostrum makers and venders, are carefully trained to stand guard in its defense and honestly think in doing so they become public benefactors.

They are taught by the medical schools to look with contempt upon all who refuse to recognize them as oracles. If they are ever so indiscreet as to treat with common courtesy any who refuse to recognize them as such, they are ostracised by medical societies as unworthy members. At the risk of professional character they dare not hold consultations with members of other schools, or advocates of conflicting opinions, though wiser, better and more honorable than themselves. Loaded down with professional learning they are not expected, or permitted, to be progressive beyond the metes and bounds established by accredited authorities.

J. S. GALLOWAY, M. D.

A SOCIETY OF MEDICAL WOMEN.—Although some women physicians have been received as members of the West End Medical Society of this city, where they may exchange experiences and join in discussions with professional men, it seems desirable that medical women should form a Society of their own, where the other sex need not be admitted. All medical women of experience will agree that new complications of diseases among women and children are constantly arising, especially in this cosmopolitan town with its vari-

able climate, and that although some medical men have given us pathological works of value, we believe that we could add some pages, at least, of importance and usefulness to their works.

The majority of women will not speak to a medical man of their physical ailments with that entire freedom and unreserve which is necessary to the full understanding of a chronic case of disease, while a woman physician of experience and tact may be able to draw from her a complete history of her symptoms and sufferings. It therefore seems desirable that we should meet regularly, to hear and discuss papers and the interesting cases of different members of the society, and to consider new and improved methods of alleviating suffering, restoring health, and teaching our fellow creatures how to live.

ELIZABETH DUDLEY, M. D.

The Senate of South Carolina has recently passed a bill applying to two counties, making not only the manufacture and sale of liquor a misdemeanor, but requiring railway officials to keep a public record of all packages of liquor received, and punishing with one year's imprisonment any person having liquor shipped to him. The bill also enjoins that no person shall give to another a drink of liquor in his own dwelling if it be near his place of business. Bravo, S. C.!

RIGHT MAKES NIGHT.

Though you see no banded army,
Though you hear no cannon's rattle,
We are in a mighty contest,
We are fighting a great battle.
We are few, but we are right,
And we wage the holy fight,
Night and day, and day and night.

If we do not fail or falter,
If we do not sleep or slumber,
We shall win in this great contest,
Though the foe is twice our number.
This the burden of our song—
We are few, but we are strong,
And right must triumph over wrong.

NOTES IN SCIENCE AND INDUSTRY.

A Remarkable Voyage.—The *Post Intelligencer* of Seattle, W. T., gives a very interesting account of a sailing vessel's odd career on the ocean:

Captain J. N. Armstrong, now in command of the bark *Kalakaua*, loading lumber at Port Blakely for the west coast of South America, was in Seattle the other day. Captain Armstrong will be remembered as the commander who brought the ship *Templar* from New York to San Francisco a few years ago on one of the most remarkable passages on record. After being out for some time, the captain went to a foreign port, and for some reason his crew, excepting the officers, left. Finally two English ships came in, and from them Captain Armstrong made up a new crew, and after being out four days the entire crew, including the captain and his daughter, were taken down with yellow fever. The first mate died, and several of the sailors. Those who had the disease less violently threw the dead overboard, one by one. The ship drifted about without a pilot or navigator for more than a year. The captain, for two years, was so crazy from the ravages of the fever that he had to be chained to the deck to keep him from jumping overboard. He wears the scars from the chains and lashings to this day.

During the year that the ship drifted about the second mate and three or four of the sailors recovered, but being out of sight of land, and not understanding navigation, they were powerless to do anything with the ship. Finally the daughter regained her reason, but not her strength. One day she sent for the second mate and asked him to carry her on deck, which he did. She then sent for her father's instruments, and by the aid of these and her knowledge of navigation she figured out the location of the vessel. She then took the charts from the cabin and traced out a route to San Francisco. She then practically took command of the vessel and ordered the second mate and surviving members of the crew to make sail, and gave them the directions in which to sail. Every day for months she would be carried on deck to take the sun and give her orders.

Days and weeks passed and the ship continued on her journey. Being so light-handed the vessel could not be properly managed and could carry but little sail, consequently her progress was but slow. After many weary months the captain regained his reason, and when he learned of what his daughter had done he was greatly surprised, and declared that had he been placed in the same position he could not have done better. The ship was loaded with general merchandise, the cargo being insured for over \$200,000. The long absence of the ship, and no tidings from her, led the owners to believe that she, with all hands on board, had been lost. Imagine their surprise when one bright day in summer the ship *Templar*, with her cargo all intact, came sailing into San Francisco bay.

The American Farmer.—City life has never given the best examples and illustrations of honesty and fair dealings among men. We read that away back in the dim centuries of the past when Greece was in the zenith of her glory, when her arts and civilization were foremost among the nations of the earth, one of her purest and best citizens, the philosopher Diogenes, was seen upon the street of Athens at mid-day with a burning lamp in his hand, and being asked by a friend what he was doing with a lamp upon the streets at noon, lighted, replied that he was in search of an *honest man*. And we are inclined to believe that even in these enlightened days of the nineteenth century, a wiser man than the Grecian philosopher might even with the aid of an electric light search in vain in some of our great cities for an *honest man*. Not so, however, in the country districts, and hence it occurred to me that the most fitting subject for your consideration at your annual gathering, would be the importance and dignity of the American farmer. He is in the broadest sense of nationality, the truest representative type of an American citizen. Indeed the American farmer proper is the most complete and independent sovereign that can be found in the family of man, especially when he owns the land he cultivates. This is no extravagant expression—the history of the

human race, from the ancient days of Egyptian splendor, when the lands belonged to the three ruling-classes, the king, priests and soldiers, down to the present time, affirms it. And at no period of the world's progress has there been a time when the province of the farmer, as a factor in a nation's welfare and greatness, was more potent for good than that of the American farmer of to-day. With his farm well-stocked, managed and paid for, he is the true citizen and sovereign of his country. In 1871 and again in 1881, it was the privilege of your speaker to travel through the best agricultural regions of Great Britain and Continental Europe, and in no section can you find that supreme reality which the farmers of America enjoy; the mildewed touch of royalty, rank aristocracy and oppression are the blighting frosts that chill the aspirations of the farmers of those countries, and it may safely be asserted that no nation can be truly great, prosperous and contented when the lands are owned and burdened by a titled nobility. What better illustration of that fact do we need, than the significant event of that patriotic gift by the warm-hearted people of France, who recognize this country as the only place on the civilized globe where a statue could properly be erected symbolizing the glorious sentiment of "Liberty Enlightening the World."—*From address of Mr. W. H. H. Russell, at Greene County Agricultural Fair, 1886.*

Prevention of Noise.—To those who carry on any operations requiring much hammering or pounding, a simple means of deadening the noise of their work is a great relief. Several methods have been suggested, but the best are probably these: 1. Rubber cushions under the legs of the workbench. *Chamber's Journal* describing a factory where the hammering of fifty copper-smiths was scarcely audible in the room below, their benches having under each leg a rubber cushion. 2. Kegs of sand or sawdust applied in the same way. A few inches of sand or sawdust is first poured into each keg; on this is laid a board or block upon which the leg rests, and round the leg and block is poured fine dry sand or sawdust. Not only all noise, but all vibration and shock, is prevented; and an ordinary anvil, so mounted, may be used in a dwell-

ling house without annoying the inhabitants. To amateurs, whose workshops are almost always located in dwelling houses, this device affords a cheap and simple relief from a very great annoyance.

New York Academy of Anthropology.—At the January meeting of this society Mr. Round, Secretary of the National Prison Association, delivered an interesting address on Social Wastes, as exemplified in the common methods of treating criminals. He said that according to statistics a criminal at large cost the State \$1800 a year, and it was far cheaper to keep him in confinement. For every one in prison there were five at large, and at the sum mentioned the cost to the country of the criminal class was estimated at \$480,000,000, a year. Besides, there was a steady increase of this class from year to year, with a proportionate increase of their cost to society. The increase was more due to immigration, in which there was a large criminal element, than to causes at home, it being found that there was a close relation between the statistics of crime and immigration. The best data shows that 78 per cent. of the crime in our country is committed by foreigners, or children of foreigners who have inherited the evil propensities of their parents. European governments make America a sort of Botany Bay for some of their worst criminals, and hundreds of desperadoes come here after exhausting their lawless arts in their own country. One step in the course of reform should be a careful supervision of the foreign passenger service, through the establishment of a police force, so that every criminal and professional mendicant should not be permitted to land on our shores.

Another important step in the solution of the problem of reform, is the training of the young and of prison inmates in branches of industry. The want of a knowledge of some useful trade is a conspicuous feature in our criminal population. Give a man the ability to use his hands and senses in a self-supporting branch of labor, and you will invest him with the means of protecting himself against vice and crime.

The system now in practice at the Elmira Reformatory has demonstrated the truth of this. It brings out the man in a convict and

trains him to be a self-respecting, law observing, and useful citizen ; whereas, by the common method of our State prisons and penitentiaries, especially where convicts are bound to hard labor that the institutions may be run at a profit or pay their way, the prisoner when relieved is usually the dogged, sullen villain he was before confinement. Under the Elmira method 80 per cent of the convicts are redeemed ; while according to experts 17 per cent is the highest estimate of the reformed under the old system.

H. S. D.

Boiler Explosions Not "Accidents."—In an item published by the London *Ironmonger*, Mr. Thomas Gray, Assistant Secretary, Marine Department of the Board of Trade, in reporting upon the working of the Boiler Explosions Act, 1882, during the twelve months which ended June 30, 1886, makes it perfectly clear that boiler explosions are *not* accidents. Mr. Gray says that the term "accident," as applied to the explosion of boilers, is a misnomer, and adds that the only circumstance connected with many of these explosions that could be called accidental was that they remained so long at work without exploding. Last year there were more explosions than in any of the preceding four years, the total being 57, as against 43, 41 and 45 in 1884-'85, 1883-'84, 1882-'83, respectively. There were 33 lives lost and 89 persons injured by boiler explosions last year. Mr. Gray classifies the causes to which the explosions were attributable as follows : Deterioration, corrosion, safety-valve defective, etc., 32 ; defective design or construction, 16 ; ignorance, neglect, or carelessness of attendants, 6 ; and miscellaneous, 3. It is thus shown that 26 per cent of the total number of explosions was due to neglect on the part of the owners of boilers. In spite of this serious negligence, Mr. Gray says, "the verdicts of 'accidental death' which were almost invariably returned, and generally without any qualification by coroners' juries in fatal cases, show that explosions are still regarded by the persons who sit on those juries as being due to causes which are beyond control, and unless evidence of the clearest and most conclusive kind can be produced, an attempt to secure a criminal conviction would be certain to end in

failure." In many cases this is a matter for real regret, for there can be no doubt that in many factories boilers are persistently used to the great peril of the lives of the work-people, long after they are known to be positively unsafe. This sort of logic has a wide application to boilers used in America.

The Laws of Friction.—An Exchange thus epitomizes the leading principles governing friction :

1. Friction is greatly influenced by the smoothness or roughness, hardness or softness, of the surface rubbing against each other.

2. It is in proportion to the pressure, or load ; that is, a double pressure will produce a double amount of friction, and so of any other proportionate increase of the load.

3. The friction does not depend upon the extent of surface, the weight of body remaining the same.

4. The friction is greater after the bodies have been allowed to remain for some time at rest, in contact with each other, than when they are first so placed ; as, for example, a wheel turning upon gudgeons will require a greater weight to start it after remaining some hours at rest than it would at first. The cause of this appears to be, that the minute asperities which exist even upon the smoothest bodies gradually sink into the opposite spaces, and thus hold upon each other. It is for the same reason that a greater force is required to set a body in motion than to keep it in motion. If about one-third the amount of a weight be required to move that weight along in the first instance, one-fourth will suffice to keep it in motion.

5. The friction of axles does not depend upon their velocity ; thus, a railroad car traveling at the rate of 20 miles an hour will not have been retarded by friction more than another which travels only 10 miles in that time. It appears, therefore, from the last three laws that the amount of friction is as the pressure directly, without regard to surface, time or velocity.

6. Friction is greatly diminished by unguents, and this diminution is as the nature of the unguents, without reference to the substances moving over them. The kind of unguent which ought to be employed de-

pende principally upon the load ; it ought to suffice just to prevent the bodies from coming in contact with each other. The lighter the weight, therefore, the finer and more fluid the unguent should be, and *vice versa*.

Are Hobbyists Disagreeable People?—"Why is it that all professional reformers make themselves personally and socially disagreeable and repulsive?" asked the good deacon of a west-side church, as he and I were strolling down Madison street this morning. We had just passed a vinegar-visaged individual whose business was that of a red-hot reformer. "It is a conundrum you are asking," I replied ; "I give it up. But is it a fact that all professional reformers are disagreeable and repulsive, personally and socially?"

"Yes, it is a fact," said the deacon, who is an amiable and philanthropic gentleman and a popular and successful man of business withal ; "and I have long been trying to explain it. A reformer is presumably actuated by a good motive—a desire to make people better by mitigating or abolishing the vices or burdens or evil influences by which they are either demoralized or oppressed. This good motive, one would think, should have a tendency to make him good-natured and kindly. But I have noted many of the class carefully, and have found that the man with a hobby is invariably an ill-natured and ill-mannered person. I don't understand it, don't pretend to be able to explain it, and when I asked you the question I did so for information."

A well-known lawyer residing on the West side joined us in our walk near the bridge, and I submitted to him the deacon's problem. "I, too," remarked the lawyer, "have noted the fact referred to, and my explanation is that the same cause that originally makes men or women professional reformers operates to make them more and more disagreeable to the generality of people as they grow older and become more devoted to their special hobbies." "What is that cause?" asked the deacon. "It is simply the fact that they make the mistake of believing themselves far better and wiser than all other people, and treat other people accordingly," answered the lawyer, who, as a finality to the conversation, asked : "Did

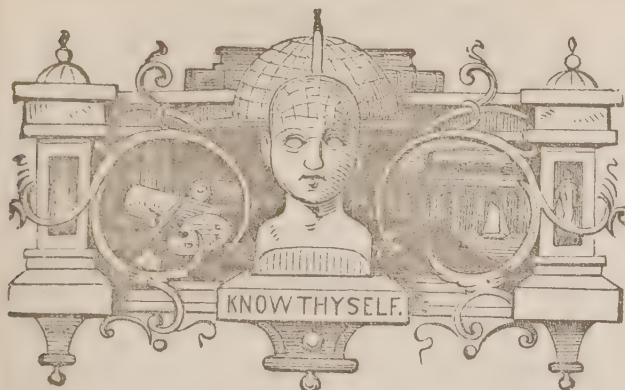
you ever know a self-conceited fool to be either agreeable or popular anywhere, even in his own home and family?" Neither the deacon nor I could make an affirmative answer, and we agreed that the lawyer had the case.—*Chicago Journal*

A Microscopical Record.—A work which will readily commend itself to all microscopists who desire to keep a permanent record for reference of their work from day to day, is modeled after a plan suggested by Prof. S. H. Gage, of Cornell University, at the Chicago meeting of the American Society of Microscopists, and modified to meet the wants of the general worker as well as the specialist, by Chas. E. Alling, Rochester, N.Y. The volume contains in addition to the numbered spaces for 500 or 1000 preparations, from twenty to forty pages of paper suitably ruled for formulæ, so that they can be referred to by number and avoid repeating the details with each object. Also an index sufficiently large to catalogue each preparation under both the common and scientific name. It can also be used as a descriptive record of the preparations of other workers, thus cataloging in one book the entire cabinet.

Prices of the Record books for 500 objects to 1000 with space for formulæ and index, bound one-half Russia, spring back, \$3.00 to \$4.00.

Our National Debt.—The governmental indebtedness, on September 1, 1886, was \$1,683,768,594.47 : including Pacific Railroad bonds, the vast amount would be augmented by the addition of the sum of \$64,000,000.

In 1791 the national debt was \$75,000,000. By the war of 1812, it had increased to \$127,000,000. In 1835, it was \$37,513,000, its lowest record. In 1860, it was about \$64,000,000, or \$1.91 per inhabitant. The civil war cost more in a single year than the entire expense of the government from Washington to Buchanan, and in four years raised the national debt to the sum of \$2,756,000,000 or \$78.25 per inhabitant. Its reduction—nearly one-half in twenty years, has never been equalled in the world's history, and is highly creditable to our financial management, but how about taxation meanwhile?



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
FEBRUARY, 1887.

MORAL INSTRUCTION IN SCHOOL.

THE sober people in society are becoming more and more awake to the necessity of moral teaching in schools. At the conferences of clergymen, at teachers' meetings and institutes, and in the proceedings of scientific societies the subject comes up for frequent discussion, and it is unanimously agreed on all sides that there has been a great mistake made by the directors of public education in neglecting or ignoring moral culture. How to atone for this mistake, and set in motion a system of instruction that shall make of the children now in school better moral agents than their fathers and mothers, and capable of raising the level of moral sentiment in the community, and stemming the drift of vice and dishonesty, is the perplexing question.

It appears to be the conviction of many that to teach the fundamentals of truth and virtue and direct their practice in every day life necessarily involves religion, and here must enter a sectarian complication that in the present state of civil affairs may prove a most serious obstacle. "We must look," says the censor of orthodox profession,

"to the Bible for our rules of moral conduct, and as we interpret them according to the authority of our church we can not help exhibiting a bias in our teaching toward the faith and practice of our particular communion." A statement of this kind at once suggests the prejudice and rivalries of contemporaneous denominations, and the old oppositions of parish schools to public.

There are a few thinkers who utter the opinion that the basic truth of practical morality, drawn indeed from that rich fountain of precept and encouragement, the teachings of Christ, of prophet and apostle, do not involve necessarily denominational specialty, and may be applied in a clear, commonsense way in the every day instruction of children without impressing an essentially sectarian bias. These thinkers point to the sermon on the Mount and the Ten Commandments, as comprising a system of morality broad enough for human needs, and needing but an intelligent, candid exposition to fit it for schools of the lowest grade. The undertone of this moral teaching is the worship of God, religion: and can we really separate any method of moral teaching worthy of the name from religion? It is our moral nature that brings us into close relation with the divine source of our being. It is that which elevates, refines, ennobles human character, and renders it most worthy of respect and admiration. Through the control and regulating influence of the moral faculties the other parts of the mental organism, and to a large extent the physical organization, are brought into harmonious adjustment and thus made to act with the most efficient energy. Where-

ever man works, be it in a field of manual industry or in a profession that employs the intellect, if the moral faculties lend their stimulus to his effort it is expressed in the zeal and ardor of his movements and in the higher quality of the results.

* * * *

For ourselves we are with those who think that it is not essential or necessary that sectarianism should color the moral teaching imparted to children. We believe that the lessons of truth, duty, virtue, charity inculcated with true candor and earnestness must lead the young upward to the source of all truth, and impress the principle of worship, but it need not be worship in the special fashion of Presbyterian, Episcopalian or Roman Catholic. Specialism of religious observance may be an extra-school affair, according to the home-influence or later tendencies. The doctrines of Phrenology recognize the tendency of the culture of the moral sentiments toward religious devotion, and count it but the manifestation of a law inherent in man's constitution. Train a child's Benevolence, Veneration, Conscientiousness, etc.—and these faculties can not be expected to operate properly without careful training, any more than his leg-muscles would enable him to walk without use and development—and you produce a religious growth that will have expression in some way. What then? Religion is inseparable from the social disposition of man, and its softening, purifying leaven in time raises the tone of the community. If our children can be impressed with the solid, basic principles of right conduct may we not leave their church connection to take care of itself?

ANOTHER BRAIN HOAX.

EVERYBODY knows that a good many of our newspapers and some of our literary magazines keep a "funny man" as a member of the permanent staff; his facetious deliveries from day to day or from month to month being considered indispensable to the variety of the literary bill-of-fare supplied their readers. The "funny man" is a privileged character in the ways of his writing and in the selection of his topics. He may choose from the whole range of human thought and action, it matters not what, so long as he is funny. He is at liberty to show up the humorous points of a funeral or of a hanging scene, as well as to descry the grotesque in a police-court examination. He is also at liberty to venture into fields of science, and with jocular pen to hit right and left at principles the most firmly based. If he possess the intelligence and wit of a Locke, a Poe, or Jules Verne, he may be a success in making astronomy or chemistry or anatomy contribute to his humor; but usually the "funny man" is not a success in handling scientific terms.

Lately this kind of a joker seems to have gotten very much into the medical line, and figures conspicuously as a diagnostician of serious disorders like consumption and Bright's disease, whole columns being devoted to the vivid descriptions of hypothetical invalids, and the web of facetiæ about the trial of this medicine and that, and of the complete failure of allopathy, eclecticism and homœopathy concluding with a marvelous recital of the effects of somebody's compound, anti-effervescent, digastric capsules, or non-atheromatous pads.

Every day, and in all sorts of publications, the religious as well as secular, this kind of fun is seen, and appears to be immensely taking, if we judge by the quantity of space given to it. Some of these humorists, indeed, appear to be rather desirous of acquiring reputation for real capability and knowledge in the department of science, where they play a *quasi* literary role, notwithstanding the negative assumptions that are relied upon to point their wit. They may have been students to some extent in science, and obtained public confidence by the display of titles and diplomas, so that their travesties of fact and principle are regarded all the more enjoyable. It must be, says the credulous, unlearned reader, that this fellow knows what he's talking about, since he's a Ph. D., or some other kind of a D.

We have been told lately about a "scientific" wag, who has attracted some attention in the West by side-splitting assaults upon the "noble forehead" idea. He is said to hold up to universal ridicule the old opinion, that the size and character of the front part of the head bear a certain correspondence to the intellectual capacity. He has discovered the "truth" of mental localization; the intellectual faculties have very little to do with the front part of the brain, but should be assigned to the back part, the posterior or occipital lobes: there is the seat of honor, there is the sphere of high thought and sentiment. What matters if the brow be low, receding, and the hair grow down almost to the orbital ridges? A well rounded and capacious backhead is the thing. Give a man that and he will show the world that it is occiput that tells, and not os frontalis.

Shades of Vic d'Azir, Camper, Riel and Magendie! and where are ye Fritsch, Ferrier, Benedikt, Bordier, Dalton, Charcot, Jackson, Carnochan, and the rest who tell us so much about the frontal lobes of the brain, and their intellectual significance? Must you hide diminished heads before this aspiring luminary of the West? And you, profound observers and philanthropists, who are so earnest in behalf of the moral advancement of society that you have measured and estimated the heads and crania of thousands of vicious and wicked people, and determined to your satisfaction that a certain development of brain is criminal and should be recognized by the state, and measures for the restraint of those who have it are essential to the peace and order of the community, what have you to say now? This facetious "savant" of the West defies you to the teeth. Him you would arraign for low intellectual powers and depraved, even murderous proclivities, he exalts for superior sagacity and ardor of feeling. You may tell him that the criminal is not developed naturally in the frontal but in the lateral and occipital regions; that the experience of ages, in civilized and savage peoples warrants your judgment; nevertheless he will rise up and reproach you with old fogysm, and old world traditions, and defiantly allege that a new type of development has come under his notice that reverses all precedent, and makes a great stride beyond the old standard. You don't know, earnest, simple men of science, the verbal resources of a Western humorist, and the cyclopedic hold he keeps on the learning of the past and present. Don't get into his toils. Think not that he is organized like the type of

humanity you are wont to scrutinize with your practiced eye. He is *sui generis*, all occipital lobe; the encephalon he carries has no fissure of Rolando, no perpendicular fissures, nothing to indicate the lobar division; he has no frontal lobes.

THE FUTURE OF JERUSALEM.

ACCORDING to the letter of Mr. Crossett, who is a missionary now in Jerusalem, which was published in January, that city is likely to attain a position of importance at no very distant day. It is growing in numbers, and its situation and the variety and abundance of its natural resources, especially those relating to food supply, should contribute toward its rapid development as a Syrian mart. The increase of travel from year to year *via* the Suez canal, and the extension southward of Russian trade and Russian territorial dominion must have its effect upon Jerusalem. Who knows but that Russia will absorb the whole tract of country between Persia and the Mediterranean ere long, and set upon Mount Olivet the cross of her State Church, replacing the effete institution of Mohammed with the aggressive policy of Greek Christianity? The hope of so many of the Hebrew faith in Europe and America that the ancient city will be a Jewish capital again is not altogether without encouragement in the existing state of things, but we think that if the hope is ever realized it will be a modern and evolved form of Judaism that will worship in the new temple, that will replace the mosque; and that the new order of civilization in its intellectual as well as moral character will be of a type more advanced than that we now know. If

Jerusalem is yet to be "the joy of the whole earth," as announced by the ancient prophet, it must not only develop into a condition of great material strength, be large in the sense of a London or Paris, well built, and well governed, but its people must also show a harmony of sentiment, and unity of purpose in the development of the powers belonging to their nature.

The speculations of Mr. Crossett do not seem wild to one who reads them with some knowledge of the topography of Jerusalem and the movements now in progress there.

SPELLING REFORM.

A CHICAGO teacher has recently issued a pamphlet in which he urges the need of improvement in the method of teaching children to spell. That his arraignment of the old, cumbrous, unphilosophical spelling of many of our most common English words is entirely just no one will deny, and if he should succeed in awakening the general attention of the public to the matter we shall be pleased. A few years ago there was a little ruffle of interest in educated circles with regard to reform in spelling, and Profs. March, Whitney, and others were quoted as supporters of it. Some well-known publications advocated the principle of dropping silent and unnecessary letters, and printed a part, if not all, of their pages in accordance with it. This movement seems to have lost energy, and now we hear very little of it.

On the educational—it's most important side—economy, time, the saving of mental effort, are arrayed, and the claim that it would make two or three years difference in the progress of a child

through a course of academic study that now requires eight or nine years, if words were spelled as they are pronounced, does not seem extravagant to one who realizes the difficulties a child must encounter in mastering the common orthography.

Mr. Lawler, of Illinois, has introduced a bill in Congress to "test and try the science of spelling," which seems to be a measure in behalf of a method devised by a teacher of Chicago for sim-

plifying the process of learning to spell the words of our language.

If this measure have all the practical advantages that its originator and advocate ascribes to it, a few thousand dollars drawn from some "River and Harbor Bill" should be given by Congress, as the interests of our school-children are of far more importance than all the little creeks and shore entrances trumped up by Congressional jobbers.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE

contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

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THAT ESTATE IN ENGLAND.—L. J. P.—As a rule we discourage the attempt of persons residing in this country to obtain possession of an estate that is said to be in the holding of the Bank of England, for default of heirs. It may be possible that you are a descendant of some rich Englishman whose property has fallen into the hands of the Crown officers, but in spite of representations to the contrary by parties who are desirous of drawing a good fee from you, it would be a very difficult matter to establish a right to any part of that property—especially if a considerable time has elapsed since the owner's death. It is rare indeed for a man to die anywhere and not have heirs immediately on hand to claim what money or other property he might have left. In England this is particularly rare. Furthermore, it is a very uncommon thing for a man who has no near relatives not to make a definite disposition of his estate by will or otherwise. You may believe that the stories told about the vast amount of unclaimed



money in the Bank of England are for the most part fiction.

**THE CHICKEN INCUBATOR.**—J. P.—We don't think much about it aside from the opinion that raising chickens by artificial means in this country is very much like silk-culture; that proved a delusion to the great majority who were led by the brilliant assurances of ingenious schemers to undertake it, and so it appears to be turning out with the grand egg-hatching enterprise. Some of our friends who went into the business with great enthusiasm a few months ago, thinking they had but to get an incubator, light the lamp, start the battery and in a few weeks there would be a few hundred little yellow-legs tripping over the gravel of their chicken yards, think very differently now, and would like to have an opportunity to flatten the Acquisitiveness of the fellow who sold them the machine and promised so much. It is said that Mr. Hawkins, of Lancaster, Mass., a prominent poultry man, spent over \$2,000 in testing incubators, and has rejected them altogether, concluding after a costly experience that the natural method is the best, and to rob mother hen of her occupation wont pay in the number and quality of chickens.

**LEGISLATURE**—L or L. H. S. J.—In speaking of a legislature in general terms we should use a small l, but if we were writing of a particular legislature, as that of New York or Pennsylvania, we should deem ourselves warranted in using a capital letter for the initial. We say, therefore, The New York Legislature.

**MESMERIC POWER.**—*Question.*—Can you inform me whether ANY person can put another into a mesmeric sleep, or does it lie in but few.

G. B.

*Answer.*—We have answered this question more than once within a year or so, but the growing interest of the public in hypnotism naturally prompts the inquiry to be made repeatedly. We think everybody has some degree of mesmeric or magnetic influence, but to exercise it in the special way of causing another to fall into the sleep or trance-state requires conditions and methods that all can not command. The ability to control even those susceptible to the influence on most occasions is possessed by few, and

with the best operators the power is found to vary greatly from time to time.



*Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.*

**Spiritualism Among the Shakers.**—I recently visited the Miskayuna Shakers, whose village is near this place. Among them I saw my old friend Nehemiah White, an aged Shaker, who has been very ill for a long time and without hope of recovery. He has for many years been an ardent student of Phrenology, considering it one of the most useful of the sciences, showing the whole duty of man. Nearly fifteen years ago he gave me books on the subject and encouraged me to study it. He is also one of the firmest believers in Spiritualism. He says, that he has not only seen many of the manifestations that have occurred among the Shakers, but had himself a very remarkable experience, the result of an accident by which it was for some time supposed that he was instantly killed. Being struck on the head by a heavy timber, he fell to the earth, but seemed instantly to regain his feet, and on looking down to the ground saw his own body lying there apparently lifeless. He saw men rush to it and bear it away carefully and make efforts to restore it to animation, and heard all their conversation, and also saw and conversed with friends long dead. After about two hours he made an effort to re-enter his body, and it seemed very difficult to do so but he succeeded, to the joy of the relatives and friends standing by. This experience is to him a vivid reality, and he entertains no doubt of the reality of the after-life, no fear of annihilation. It is not generally known that modern spiritualism originated with these Shakers, of whom Nehemiah White is one. The manifestations first occurred in the person of a little girl, who was controlled apparently by former members of the community, who had died, some of them many years before. After that they had manifestations regularly at their meetings



for years and through various members of the community; and they now have thousands of pages of communications that were recorded. Finally, after some previous warning it was announced at one of the meetings that the spirits would not manifest themselves among the Shakers thereafter, except occasionally; that they were going out into the world to undertake the great work of convincing all people of the reality of spirit existence; and that they, the Shakers, would soon hear of their work outside of their community. This meeting was of remarkable interest. The communications contained many words of exhortation and encouragement and a final affectionate adieu. From that time to the present there have been very few. It was about two weeks after the meeting above referred to that the mysterious rappings occurred in the home of the Fox family, near Rochester N. Y.

The above facts I have from Elder Giles B. Avery, than whom a more clear-headed, intelligent and honorable man can not be found, and have written them thinking that they might interest some of your readers.

F. E. ASPINWALL, M. D.

**A Little Mystified.**—SALEM, O., December 8, 1886. Dear Mr. Editor: About the year 1865 I was giving a course of lectures on Physiology and Phrenology in the town of Damascus, Ohio. At the close of the course a lady came to me and presented a manuscript written in a nice, legible hand, and on the front page were written the following words, with fine pen embellishments surrounding it: "Respectfully inscribed to Dr. J. M. Hole, Salem, Ohio, by his much interested friend, Mattie J. Morrison, of Damascus, Ohio." This was the identical "What All Must Be" to be found on page 296 of the December number of the JOURNAL. To say I highly esteem the article would but faintly express myself. But I so carefully stuck it away among my books that I had long since lost it, for good. Upon opening the JOURNAL, I at once saw the words and proceeded to read the poem, all the while impressed that I had seen it before some where, until I came to the end. All was explained. How you got it deponent sayeth not. Kindly yours,

J. M. HOLE.

(NOTE—It remains for the editor to say merely that the poem came to our hands straight enough; even from the author herself, now Mrs. Banks, through the interest of a friend in our office.)

**Baking Powder it is.**—The weight of evidence is unquestionably to the effect that baking powder prepared from soda and cream of tartar, when put up in cans with the name and trade-mark of a reliable maker, are greatly to be preferred to any other form of bread-raising preparation. If raised bread is required, we must have something to vesiculate the dough and make it light, palatable and digestible. Yeast will doubtless continue to be preferred by many who are accustomed to the old methods for making bread; but yeast can not be used in cake, biscuits, and various other kinds of pastry, and these must accordingly be raised by the use of cream of tartar and soda, soda and sour milk, or the more modern baking powder.

There can not be any question that of these agents a good baking powder is far the best. Its advantage is that, while composed of the same materials, it is carefully mixed in accurate proportions, so that neither acid nor alkali shall be in excess. While, therefore, there may be danger of injurious effects from the use of cream of tartar and soda when they are bought separately and mixed in the kitchen, because of the great difficulty of getting the proportions accurate, there is none when they are accurately combined in a first-class, pure baking powder.

But the choice of a baking powder should be made with the greatest care. The majority of those on the market are not only of doubtful utility for raising purposes but actually dangerous for use in food. All the low-price powders, and powders sold with gifts and prizes, contain alum or lime, and hence should be avoided. Many of those sold at higher prices are made from impure materials.

The question of purity in baking powders has formed a large feature of newspaper discussions recently, and eminent doctors of philosophy have given opinions as to the ingredients which compose many of these articles. The investigations have narrowed down to the limit which awards the Royal



Baking Powder the palm of purity, and several of the most distinguished scientists have testified to their conviction that no extraneous or deleterious matter enters into its composition. The Royal Baking Powder Company have achieved a world-wide reputation for the success which has marked their preparation of cream of tartar for baking purposes. It is indisputably shown, that they have eliminated all elements of tartrate of lime, alum or other impure substances, and present to the public a healthful and chemically pure article. Such chemists as Henry Morton, E. G. Love, Wm. McMurtrie, and several others have verified its superiority and testified, through practical experience, to its excellence.

E. P. I.

### PERSONAL.

GENERAL JOHN A. LOGAN, United States Senator from Illinois, died at his residence in Washington, D. C., on the 26th of December, at the age of nearly sixty-one years. The cause of his death was rheumatism. He had been troubled with rheumatism for many years, but was not considered seriously ill until a few days before death. He was born in Jackson County, Illinois, his father having emigrated to this country from Ireland. At the outbreak of the Mexican War he volunteered in the service and came out with credit. He afterward studied law, began its practice, was elected to the Legislature of his native State, and henceforward gave himself up to politics. A Democrat hitherto, when the civil war broke out he took up the cause of the Union, and did a great deal to turn popular opinion in southern Illinois. At the time of the first battle of Bull Run he was a member of Congress, and immediately after adjournment returned home, raised a regiment in the face of powerful local prejudice, and took the field with the volunteer army of the Union. His record during the war was a brilliant one. He was afterward twice elected United States Senator from Illinois, and was on the ticket with Mr. Blaine for the Presidency.

THE RECENT DEATH OF DR. BARKER, of North Carolina, is a matter of much regret to the phrenological world. He received his medical and phrenological training in

Edinburgh, Scotland, about forty years ago, and after coming to America made the South his home where his abilities soon gave him reputation. As a lecturer he was clear and convincing and as an examiner careful and exact. No other man in the South, we think, has done more toward sustaining the science in the past than Dr. Barker.

### WISDOM.

"Think truly, and thy thought  
Shall be a fruitful seed."

The hand that follows intellect can achieve—*Michael Angelo*.

I can not live with a man whose palate has quicker sensations than his heart.—*Cato*.

A desire for usefulness is the fore-runner of happiness not only here but hereafter.

Advice is like snow: the softer it falls, the longer it dwells upon, and the deeper it sinks into the mind.—*Coleridge*.

No man can be really influential who can not listen as well as talk. Experience teaches that all people have something in them worth attending to.

Don't do right unwillingly,  
And stop to plan and measure:  
'Tis working with the heart and soul,  
That makes our duty pleasure.

Riches, power and fame can not scale the heights of pride; neither can poverty with misery escape its blasting coils. It is the "jack o'lantern" that lures its followers into the marshes of corruption.

Nothing is easier than fault-finding. No talent, no self-denial, no genius, no character are required to set up in the grumbling business. But those who are moved by a genuine desire to do good have little time for murmuring or complaint.—*Robert West*.

### MIRTH.

"A little nonsense now and then,  
Is relished by the wisest men."

When an idler enters the sanctum of a busy editor and the editor says, "Glad to see you're back" what does he mean?

Book agent. "Is the head of the house in?"



Servant. "Yis, sorr. He's in the library thrying' to write a letter with his new stylographic pen. Wull yez come in?"

Book Agent (*hastily*). "No; I'll call again."

A ragged little urchin came to a lady's door asking for old clothes. She brought him a vest and a pair of trousers, which she thought would be a comfortable fit. The young scrapegrace took the garments and examined each; then, with a disconsolate look said, "There ain't no watch-pocket!"



*In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.*

**COCOA AND CHOCOLATE.** A short History of their production and use, with a full and particular account of their properties and the various methods of preparing them for food. Walter Baker & Co., Mass.

One must take a book that has been published in the interest of a special manufacture *cum grano salis*, as a rule, and therefore, if this neat little brochure exhibits the favorable side of cocoa as a beverage it must be expected. Yet an examination shows the writer has gone to several good authorities and gives us a detail of the properties of the cocoa-bean. From Dr. Smith's well-known treatise on "Foods." Brillat Savarin and Boussingault, analyses are drawn with remarks touching the value of its food elements and its effects as a stimulant. There is no doubt concerning the possession of nutritive elements by beverages properly prepared from cocoa or chocolate, although they have a similar excitant effect to tea or coffee, but not to the same degree. It is probably well said that the use of chocolate can not degenerate into abuse, and thus become

like coffee, a slow poison, and lead to the formation of positively vicious habits. To some constitutions chocolate may not be adapted, and this is readily ascertained. We think, however, that in most cases the dislike shown to this beverage is due to faulty preparation, and this the publishers seek to obviate by including a series of recipes which cover the general field of cocoa uses.

**THE POEMS OF SIR JOHN SUCKLING**, a new edition with preface and notes. Edited by Frederick A. Stokes. Cloth, price \$2.00. New York: White, Stokes & Allen.

A tasteful volume, and fitly displaying the sprightly manner of this old-time poet. Sir John Suckling was to his age, two hundred and fifty years ago, much of what Rossetti is to ours, although in a less studied character than the modern poet. His liveliness and wit had room in those days of social latitude, for he lived in the days of the careless and unfortunate Charles I., and we can understand how his songs, and ascriptions tickled the ears of court people. We will confess that we had not seen much of Suckling's verses until this volume came under our eyes, although often mentioned by litterateurs in connection with poetry of the lively or amatory class, as a representative of a type that combined qualities of daintiness and grace with ardor and humor. Now our library makers may thank the publishers for supplying Sir John Suckling in neat form to their array of the British poets, whereas, hitherto, to procure a complete edition except at much cost was not easy. A brief yet excellent biography of the courtier-poet precedes his compositions—and a fine portrait in the old style of copper-plate, after the painting by Vandyke, is a suitable frontispiece.

#### PUBLICATIONS RECEIVED.

NO. 37 OF OGILVIES' POPULAR READING furnishes as much entertainment of the sensational sort as can be expected for the price, 30 cents.

HOW TO KEEP YOUNG TILL EIGHTY is the taking title of a little pamphlet by Levy Simpson Elphick. It is neither more nor less than a score of leaves from the experience of the writer himself, who appears as



young and vigorous as most men of fifty-five or sixty, although fully fourscore. He is a model vegetarian, and in the simple manner of his living founds his claim to robust old age and a happy mental state. His life has not been an easy one by any means, but such as may be well indicated by his own quaint statement that he "never saw the shadow of a sixpence without working hard for it."

REPORT ON CLASSIFICATION OF MENTAL DISEASES, AS A BASIS OF INTERNATIONAL STATISTICS OF THE INSANE made to the Belgium Society of Medicine, by Clark Bell, Esq., International Delegate for North America. This report has the merit of reducing to something like a system the very perplexing and numerous phases of mental disturbance, and indicating their typical differences under comparatively few heads.

THE PHRENOLOGICAL MAGAZINE, London, England, begins the year with evidences of vigor. An excellent paper on "Steps toward Perfection" contains many apt suggestions; and a "Visit to the Tomb of Gall," is told with the heartiness of enthusiasm and in graceful phrase. A liberal sprinkling of literary matter helps to fill out the generally readable pages. L. N. Fowler, Publisher.

HARPER'S MONTHLY for January has all of its accustomed bulk and variety. Opening with a choice engraving of "A Creole Belle," somewhat detached from its appropriate place in Warner's Notes on New Orleans, which are most richly embellished with fine wood-cutting. Campaigning with the Cosacks, is another well illustrated article, the sketches being in the free, off-hand style of the cartoonist. The editorial chairs are cleverly filled, and hit off seasonable topics with bright comments. Mr. Curtis gives a piquant account of the Bartholdi unveiling, and scores the system of interviewing that contributes so much to the gossip columns of our daily newspapers.

THE CENTURY MAGAZINE for January is a generous specimen of that thick Monthly, and its table of contents is more than usually sprinkled with pretty solid matter. The second installment of French Sculptors furnishes opportunity for more admirable designs, and Comets and Meteors will please the lover of the grand in nature. Messrs. Nicolay and Hay continue their graphic narrative of Abraham Lincoln's life, and the allied sketches of the great Gettysburg campaign in another part of the number are interesting to the lover of war stories. Sport has its representative in Fencing and New York Fencers; and political affairs a striking series of contrasts on The Relative Strength and Weakness of Nations.

GODEY'S LADY'S BOOK for January, 1887, redeems its promise of presenting the first chapters of Miss Rose Cleveland's serial

story "Robin Adair." Reading this installment we are led to doubt the wisdom of the author in venturing into romance. That it will be made the vehicle of many ultra ideas is evident, and is not lacking in wit. It is a very grave responsibility which *Godey's* assumes in placing before the young such hideous deformities of the human form, divinely designed and so undivinely abused. High heels have gone out by decree of *La Dame Fashion extreme*, but, having had one sensible idea pounded into her brains by doctors and sufferers, she must needs prove that she is still a rampant lunatic, by distorting the waist until feet and hands and necks are double their natural size through the enforced congestion, which in some cases amounts to actual extravasation. These unsightly fashion-plates should be rigidly debarred from all homes where the parents care for the future of their daughters and wards.

#### CURRENT EXCHANGES.

*Harper's Young People.* Weekly. New York.

*Good Health.* Hygiene, morals, etc. Battle Creek, Mich.

*The Independent.* Religious. Weekly. New York.

*Christian at Work.* Weekly. J. N. Hallock. New York.

*The Western Rural and American Stockman.* Weekly. Chicago.

*The Journalist.* Devoted to newspaper men, authors, artists, etc. Weekly. New York.

*New York Observer.* Old Presbyterian Weekly. New York.

*Rural New Yorker,* for the suburban and country home. Weekly. New York.

*The Builder and Woodworker,* for architects, cabinet-makers, stair-builders, etc. Monthly. New York.

*Le Progres Medical.* Medicine, Surgery and Pharmacy. Weekly. Bourneville, editor. Paris, France.

*Pulpit Treasury.* General representative of religious thought, illustrated. Monthly. E. B. Treat. New York.

*Druggists' Circular.* Monthly. Pharmacy, Chemistry, and drug authority. Wm. O. Allison. New York.

*The American Medical.* St. Louis, Mo. Dr. E. Younkin has succeeded to the editorship. A capable physician, he may be as capable an editor, although an anomalous article entitled "The Phrenologist" is one of his first scissorings.

*The Brooklyn Magazine* for January has a spiciness that gives a certain element of life to its contents, especially the new department of short paragraphs entitled *Salmagundi*. Mr. Beecher's sermons are a regular feature of each number.

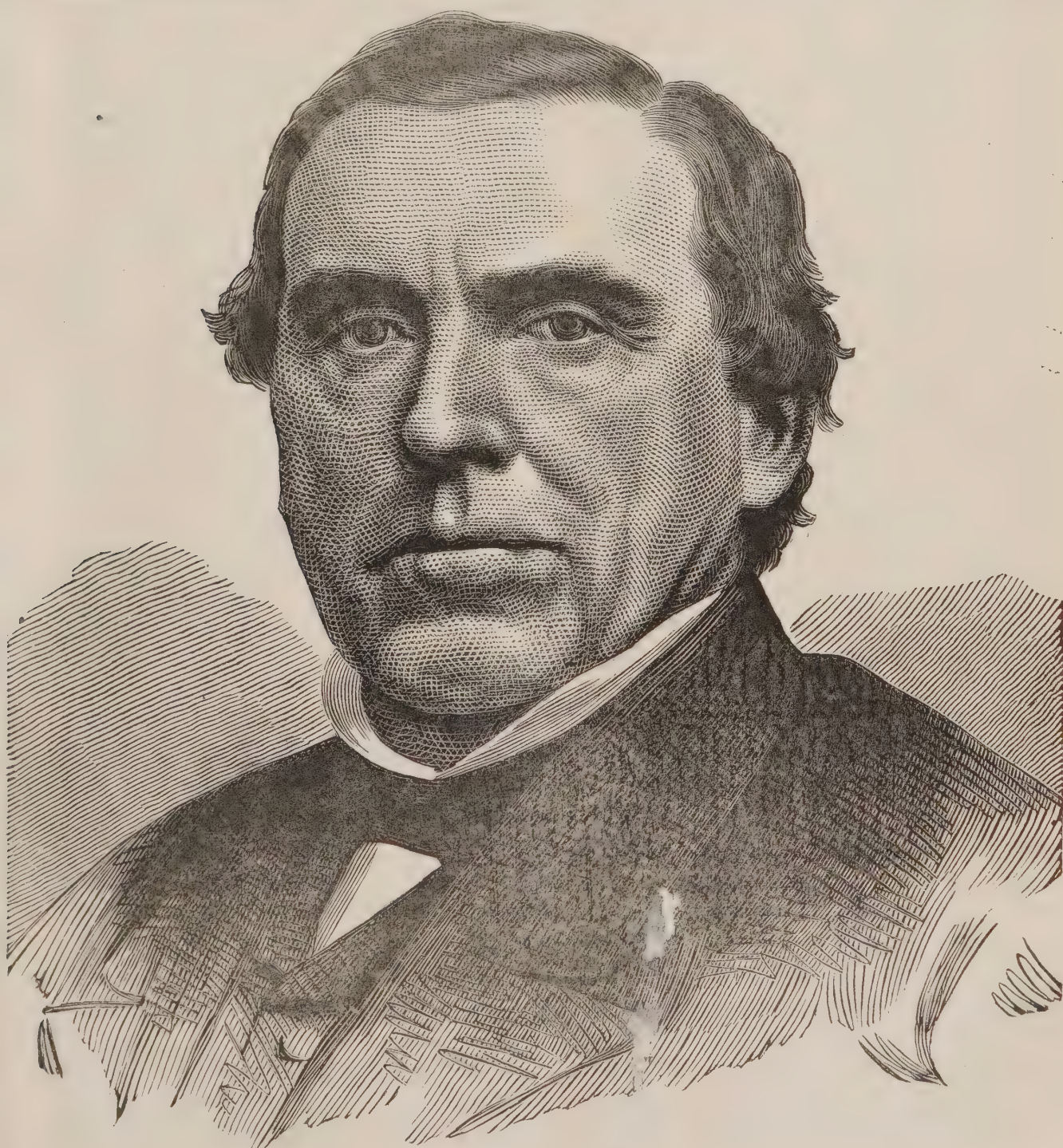


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[WHOLE No. 579.]



JOHN ROACH.



## JOHN ROACH, THE AMERICAN SHIP-BUILDER.

MR. ROACH, known in the walks of iron industry for so many years, won his reputation by sheer hard work and persevering energy. He is worthy of notice now that he has been summoned to another sphere, because his life well illustrates the possibilities of persevering effort although encompassed with difficulties, and because of his endeavors to restore to the American ship-building interest the vigor which it possessed before the late war—endeavors which have not met with their deserved encouragement in all respects—as the impartial reader knows.

First considering the portrait, which is an excellent one of the great shipwright as he appeared in his prime, ten years or so ago, we find that it indicates the possession of strength, health, endurance and power. That broad, deep chest, that strong face and large, wide brain give one an idea of momentum, energy, and power in the direction of executive-ness. The head is not high in proportion to its length and breadth, and we infer that intellectual development and force of character are the predominant elements in his nature. Sympathy, sentiment, imagination, spirituality are not his strongest traits. The length of the head, from the opening of the ear forward, is great, and the forehead is very massive, showing intellectual grip and vigor, and the ability to comprehend practical subjects from beginning to end. In working out his purpose he can be master of the situation, and when he has the right to control he takes the control, and expects his authority to be thoroughly respected.

Such an intellectual forehead reminds one of a subsoil plow, which follows the common plow, and turns its furrows under, leaving nothing in sight but its own work. We do not see in that head as much brilliancy as strength. The large Causality, located in the upper part of the forehead, in a line directly

above each eye, shows planning, originating, comprehending capacity. The breadth of the head at the temples evinces mechanical ability of the first order, and, associated with his cast of intellect, it would take the devising, planning direction, rather than that of manipulation.

The large organ of Imitation, which gives a level appearance to the top-head, enables him to copy and adapt readily whatever he meets with in the world of thought or work. He learns by experience and observation, but his characteristic force is originality. His perceptive organs, situated across the brow, are well developed, especially those of Form, Size, Weight, and Order. He has also good Calculation and a mathematical mind.

The breadth of the head between the ears, and a little backward of them, shows Destructiveness, which gives thoroughness, efficiency, and some severity to his character, while he has enough Combateness to make him courageous and plucky. The physiognomy indicates strong social qualities—the tendency to make friends, to be fond of children and pets, and to feel at home in the social circle. His Language is sufficient to make him a good talker, and when he talks he says something, by no means multiplying words, but driving right home to the point.

His Mirthfulness is large in the portrait, and it seems to us that in the circle of his friends, in the easy hours of leisure, he is one of the most jovial of men. He is not a proud, aristocratic sort of man, but one of those whom poor men can approach with confidence. In general, his nature is open, earnest, positive, executive, and thoughtful; full of originality and of mechanical and business ability.

From a sketch of his career, recently published, we extract the following interesting notes: John Roach was an



Irish lad, having been born in Mitchelstown, County Cork, in 1815. His father was a farmer and fairly successful, but he had a large family to support. His mother was a woman of good intelligence and great industry. He always spoke of his mother with warm admiration and deep reverence. It was her rich mind that he inherited, and her buoyant spirit and indomitable pluck. A typical Irishman, he possessed in a rare degree the keen wit, the appreciation of a good story, the poetic fervor and imagination, and the native eloquence which are characteristic of Irishmen.

He spent his early boyhood at home and was known there as a very bright lad. But his father's family was so large that he saw no chance for himself. Besides, his robust independence could not endure the notion that he was an additional burden. He got together enough money to buy a passage to New York in an emigrant ship, and when only fourteen years old, bade his home good-bye and started for the New World. When he landed, after a long and stormy voyage, he had a trifle less than three shillings in his pocket. But he had a big heart and a splendid constitution. He stayed in New York a day or two looking for work, but nobody seemed to want him. Then he recalled that there was a man whom he knew well, who had once worked for his father in the old country, in a machine-shop somewhere over in New Jersey. He found him after a couple of weeks in the Howell Works, owned by James Allaire, and the man got him a place at 25 cents a day in the same shop. Both his friend and himself were soon transferred to the Allaire Iron Works in this city. But he found it rather difficult to live on \$1.50 a week and was obliged to work early and late to increase his revenues. In the course of time the period of apprenticeship was passed and he became a journeyman machinist at \$9 a week. When he finished his twenty-fifth year he had accumulated \$1,200.

Speaking of those days, Mr. Roach once said: "When I started out in life, I laid down a certain course of action based upon certain principles which seemed to me to be sound. I did not conceive that I was a genius. I was very unlearned. Education, as we now understand it, was wholly wanting to me. But I believed that labor applied to natural resources was the foundation of wealth and position. I was a workingman, or, better put, a day laborer. I made up my mind that no man in that condition of life who failed to practice industry and self-denial could hope to rise out of the ranks. It struck me as nonsense for a man to think of accomplishing anything in this world who did not have a definite object ahead of him, and who was not willing to undergo all things to attain it. I, therefore, determined thoroughly to understand all the details of my business. This included a knowledge of the exact cost of everything, and the way to adapt every product of a shop to a fruitful purpose. I determined to watch my opportunities with a hawk's eye. I determined to be strictly honest, not only keeping the letter of my contracts and promises, but satisfying everybody with whom I did business by doing everything in reason that he might ask. I determined to observe the laws of good morals, good habits, to be economical in everything, and to be untiringly industrious. I made up my mind to keep out of lawsuits, and in the accomplishment of what I set out to do simply to defy all opposition, and peg away at it till it faded away."

The young man put his resolutions into constant practice, and the \$1,200 which he gathered together out of wages of \$9 a week was the result of their observance. He had conceived the idea of going West and entering upon an agricultural life. He drew \$500 of his savings from Mr. Allaire, and started off. This was in 1840. Illinois was a prairie, Chicago a village of less than 5,000 souls.



He crossed the Alleghanies on the old inclined plane. It took him a month to reach the spot where Peoria now stands. He bought a considerable part of the city's present site, paid down what money he had and wrote back to Mr. Allaire for his remaining \$700. But the shipbuilder had been forced into bankruptcy, and young Roach was stunned to hear that his \$700 was gone.

He earned enough to get back to New York by carrying a chain with a surveying party. He worked as a mechanic for several years longer and saved a few hundred dollars. With three of his fellow-workmen he went into business for himself, starting an iron foundry. They worried along amid difficulties until his partners wanted to get out of the concern. He bought them out, agreeing to pay them so much a week for their interest. In three years he had paid them all off and had two of them in his employ, and when thirty-six years old was deriving a handsome profit from it. He had married a Miss Johnson some years before and found in his wife a helpful companion.

Mr. Roach's prosperity was almost assured when a boiler burst, wrecking his establishment and killing seven of his men. The insurance companies refused to pay the policies he held, on the ground that the explosion was the result of carelessness on the part of his engineers. He had several excellent contracts on hand, but not a penny in the world with which to rebuild his plant or get the materials to perform the work. But he hustled around and found a friend who lent him barely enough money to recreate the skeleton of his former plant. "I then went to some brokers, showed them my contracts, and asked for the money. They one by one refused, and the last one said I was a fool to ask him to risk money on such security. Just then one of the men from whom I had obtained a large contract passed the window. I ran out and called him in. 'Mr. So-and-So,' I said,

'this gentleman says I am a fool to ask him to lend me money on the security afforded by your contract. I don't think he has insulted me, but he certainly has insulted you. Now, suppose you prove to him that a contract from you is worth its face value by lending me the money yourself?' The plan worked beautifully. 'You can have all you want, Mr. Roach,' he said, and he was as good as his word."

In 1868 Mr. Roach's business was so heavy that he bought the Morgan Iron Works and began to build iron ships. His Government work had given him a wide acquaintance among public men, and when the free-ship fever broke out, he turned loose the flood-gates of his eloquence upon Congressional committees and the public. He did as much as any one to kill the free-ship idea and to expose its weaknesses. He was hearty in his advocacy of the protective tariff system and wrote and spoke to large bodies of workingmen all over the country.

Mr. Roach's purchase of the Morgan Iron Works was a business success, but his ambition to be the head of the greatest ship-building establishment in the world was not satisfied. In 1871 the plant of Kearney, Son & Archbold, who were in reduced circumstances, at Chester, Penn., was for sale. Mr. Roach bought it. It had a splendid frontage on the Delaware River and was near to cheap coal and iron. He added heavily to the plant, started a rolling-mill, blast-furnaces, and every facility for building a ship right out of the ore and the timber. His plant covered 120 acres and was worth \$2,000,000. In his two establishments, here and at Chester, 3,000 men were employed, 114 iron vessels have been sent out upon the ocean, a business of more than \$50,000,000 has been done, and weekly wages to the amount of \$30,000 have been distributed among American mechanics. Ninety per cent. of the iron vessels now sailing under the American flag are John Roach's work ; and yet the



man who did all this died in deep humiliation, his heroic spirit broken and his fortune largely swept away.

The fact is that his business with the Government was a small part of his work. He built the great compound engine for the Trenton, bidding \$635,000, or \$15,000 lower than the next lowest bid. In 1873, out of eight new engines he got the contract for building one at \$120,000, and in 1873 he built two sloops-of-war for \$580,000, on bids that were \$60,000 lower than the next lowest. He constructed the sectional dock at the Pensacola Navy Yard for \$219,000, or \$60,000 less than others offered to do the work for. When the fourteen iron turreted monitors were ordered in view of possible trouble with Spain, Mr. Roach built four of them at a price fixed by the Government on the same terms for all the builders. In 1876 two other monitors out of five were given to him to build. This completes his work for the Government down to the contracts for the Dolphin and the three new cruisers. Referring to his work he once said: "In all of it I was the lowest bidder. I never did a piece of work for the Government that I did not save it money. I never received a favor in an illegitimate way. All the work I have done for the Government would not keep my shipyard running a year."

He built the Pacific Mail steamships Tokio and Pekin. He built the City of Paris and the Rio Janeiro for the United States and Brazil Steamship Company. For the Alexandre Line he built the City of Washington and the City of Alexandria. The Manhattan and the Breakwater, which run along the Southern coast line routes of the Old Dominion Steamship Company, are among the results of Mr. Roach's skill. Other specimens of his work are the Cygnus, the Sirius and the Cepheus of the Iron Steamboat Company. He augmented the great fleet of the Pacific Mail with the San José, the San Juan and the San Blas. The beautiful Sound

steamer Pilgrim, of the Fall River Line, is one of his most famous boats. He was the builder and designer of Mr. Tilden's steam yacht, the Viking, and the Utowana, which won the Lunborg cup in 1885.

The story of Mr. Roach's reverses after the Democratic Administration came into power has been too recently and too fully told to need reiteration. No one who knew him doubted for a moment that the embarrassments which ended finally in his business fall shortened his life many years. When the Dolphin's keel was laid, John Roach was a man of rugged health, erect in his walk, ruddy in complexion, and he carried his load of sixty-seven years with their hard experiences and incessant labors so that one would hardly think him past his prime. But he was an emotional man, keenly sensitive as to his good name, and in the low condition of general business which prevailed at that time, the forces arrayed against him were too great. He fought hard and fast, but his hair whitened and deep furrows cut their way into his brow and cheeks. And when at last Attorney-General Garland wrote the opinion that Mr. Roach never had any valid contract with the Government, and that he was liable for every dollar paid him, it was too much for the shipbuilder, and broke him down.

The immediate cause of his death was cancer of the mouth, developed, according to the opinion of leading physicians, by the shock of his business complications and the assignment for the benefit of creditors made in July, 1885. The case was similar to that of General Grant, but more painful and speedy in its progress, his death occurring Jan. 10th last.

In his family relations, Mr. Roach was extremely happy. He had four sons and two daughters. The oldest son died a dozen years ago. The second, John B., is now in charge of the works at Chester. The third, Garrett, inherits much of his father's ability as a speaker. He owned a large interest in the firm and was his father's right-hand man.



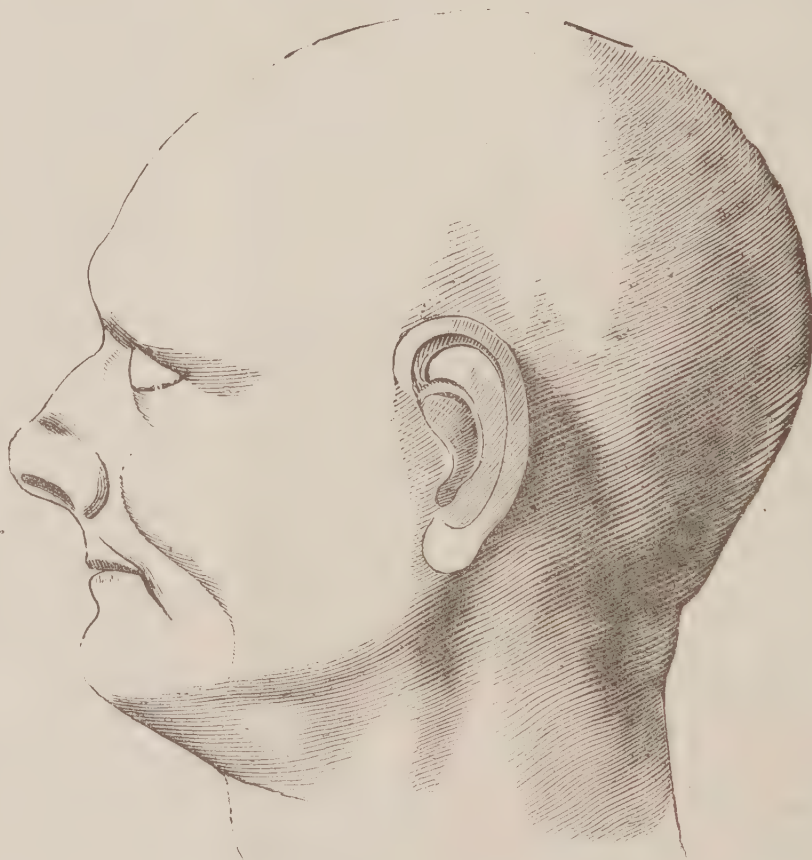
## FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 15.

## AMATIVENESS.

**Y**OU and I, my youthful friends, are parts of a great association called Society. You know that men and women, boys and girls make up the community or place in which we live. You know that some die every day, but then children are born every day, so that the number of people in the world is more than kept up. The fact that babies are born is simple enough, yet it is the one upon which society rests—because the total failure of such births, if such a thing were possible throughout the world, would be the total destruction of mankind in a little over one hundred years.

Man and woman are differently organized in their bodies for the purpose of continuing the race. They have certain faculties of mind as well as physical organs that were given them by the Creator for the express purpose that they should become the parents of new generations, and thus keep up the social order. One of these faculties is Amativeness, which may be termed the primary element in the formation of the family and social relations. It inspires the particular affection that brings men and women together. When a youth of eighteen feels himself drawn toward a particular girl, and likes to be in her society more than in company with others, it is because of the activity of Amativeness. If the girl shows a similar preference for him, then both feel very happy, and with favoring circumstances they marry, and become hus-

band and wife, and make a home for themselves. They are mated, very much as birds are in the springtime. I think it one of the most beautiful sights that life gives us, to see two young people who are well-fitted for each other in age, health and circumstances, start in life together, with a strong, confiding love, and determined that sickness, poverty and trouble shall not separate them.



AMATIVENESS LARGE. FROM A CAST OF THE HEAD.

Thus, the organ of Amativeness acts in an orderly, harmonious way, and its results are a blessing to the parties concerned. But when it acts in a disorderly manner, because of the want of guidance, and it is only a sort of animal excitement, then the results are evil to both sides.

Every boy and every girl should know something of their physical nature, on the side of the Amative feelings, and it



should be the duty of father or mother to warn them early in life against getting false ideas, and acquiring improper habits. I have no doubt that my young readers who are over twelve could tell me many sad tales of the doings of some companion or companions who had gotten into unnatural and impure ways of trifling with what ought to be a sacred part of their bodies. And most of such cases are due altogether to ignorance. If a boy were instructed by his father about the great danger he would run, in following the example of some foolish and wicked schoolfellow, it is very unlikely that he would follow it. If your parents, my ambitious boys, have not advised you about your duty in this matter, go to the physician who is employed by them, or to your minister and ask for advice. I know that he will be glad to give it to you—and perhaps save you from a world of sorrow, if not ruin and death.

This organ of the brain, when properly understood and rightly trained, makes a man gallant, kind, and tender in his treatment of women; and a woman graceful, polite, and winning to men. It contributes to the most delightful relations of our life, when its activity is in harmony with our moral and intellectual natures, but, as those of you know who are old enough to read the newspapers, when it has become perverted by bad training and the abuses of vice, it is one of the most powerful agents of human ruin, breaking the ties of home, family and friendship, and leading to crimes of every name.

My dear boys, and you, my dear girls, learn all you can about the true nature and influence of this organ, and thus protect yourselves against mistakes in your friendships, and especially the sad, sad mistake of personal harm through wicked passions. When you learn that any companion inclines to immoral and foul practices, avoid him or her, unless you feel strong enough to try to attempt a work of reform. You would

run a great risk in most cases, and it would be better if some grown-up, mature friend were informed of the matter, as his or her advice would be likely to have much more effect than any remonstrance of yours.

#### CONJUGALITY.

We have seen that Amativeness draws men and women together because of their difference in sex, but its influence would not be enough to complete those ties of home-life that we think so desirable and happy. Animals and birds generally show the amative feeling. Horses, dogs and cats, chickens and sparrows live together in a mixed, promiscuous way, and



CONJUGALITY AND PARENTAL LOVE LARGE.

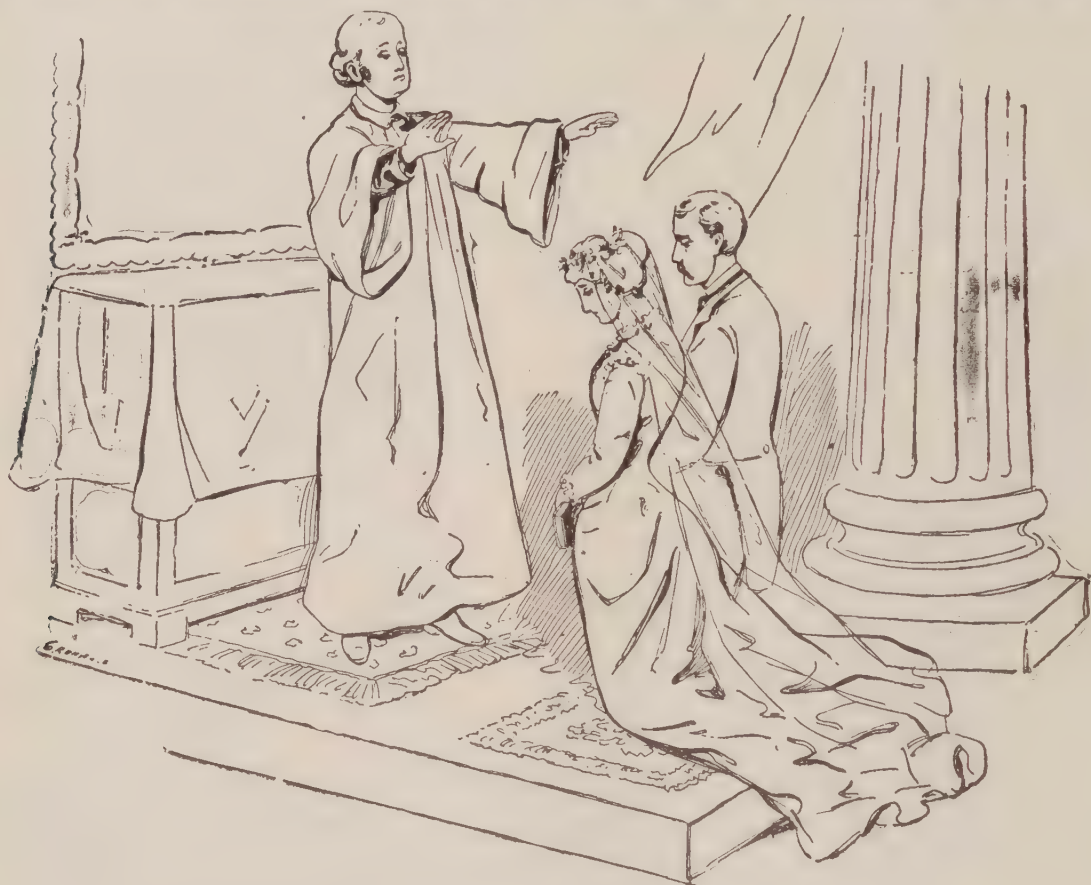
when a female has young ones to care for, the father, horse, dog, cat, sparrow or chicken does not show any particular regard for her little ones, although it sometimes happens that while the babies are growing, the male dog, or cat, or sparrow will help take care of them, but as soon as they can shift for themselves he is no longer attentive to either his mate or offspring. There are some birds and animals, however, who have the disposition to choose a mate and remain faithful for life. You know how doves act, showing so much affection and devotion to each other, The eagle, too, is said to remain with his mate for life; and the lion is renowned for devotion to



the lioness. These indicate the faculty of Conjugality, or the marriage feeling, or the disposition to have one partner in the sexual relation.

In man, of course, this feeling is expressed in the highest form, and some times it appears to be active even before Amativeness has arrived at a stage of special influence upon the character. You have seen little children show it by picking out certain of their playmates and treating them with particular fondness, and speaking of each other as "my wife" and "my husband." Some peo-

apart from all other society. But those who are weak in the faculty are not satisfied with the exclusiveness of the home relation, and want variety of companionship, although they may not do wrong. We hear people talk about not caring to get married, and laughing at those who are rather burdened with the cares of family and household; such persons are small in Conjugality you may be certain, because when one is large in this respect he usually admires the married state, speaks very kindly of those who are happy in it, and is fre-



"WE WERE MARRIED IN CHURCH."

ple might say that they were only imitating grown people, but I have watched such play among the little folks and seen how real on their part was the exercise of the feeling.

The influence of this faculty varies like that of other faculties, and if we watch the conduct of people we can soon learn much about this element in their social nature; those who have it strong, want to be married early in life, and will devote themselves to wife or husband, feeling satisfied with their association even

quently found in the company of those who attend such a ceremony as the illustration shows. This is society's method you know of helping people to show and make legal the conjugal relation, and it is certainly very beautiful. Sometimes it is much overdone in the way of dress, presents, company and expensive things that people who really love each other don't care much for—or shouldn't. The poet Thomson expresses a warm feeling of this sort in the well-known lines:  
But happy they! the happiest of their kind!



Whom gentler stars unite and in one fate,  
Their hearts, their fortunes, and their beings  
blend.

The location of this organ is in the lower part of the brain an inch or so back of the ear, and over Amativeness (see A., January number.) and when it is well-developed, the head is rounded and full at the lower margin, where it dips toward the neck.

Upon the sacredness and steadiness of the marriage relation, dear young



AMATIVENESS AND CONJUGALITY MODERATE.

friends, the happiness and welfare of society depends to a greater extent than any of us think. It is a guide to man, a restraint of passion and lawlessness. If you will consider who are the most contented and who give to society its real steadiness and value, you will see that they are people who live together in sympathy and contentment and do their utmost to make their homes and families the dearest place on earth. Let me point you to the warm lines of another poet who saw clearly the truth of what I have just said. Cowper writes:

Domestic happiness, thou only bliss,  
Of Paradise that has survived the fall!  
Thou art the nurse of virtue. In thine arms

She smiles, appearing as in truth she is,  
Heav'n born and destined to the skies again,  
Thou art not known where pleasure is  
adored.

#### PARENTAL LOVE.

I need not spend much time in explaining the action of this faculty, for however young any of you may be, you have seen its expression. Every cat that has kittens, every bird with little ones in the nest shows you the great power of the parental instinct; and you know that if the mother didn't have such a feeling the young ones would soon die from neglect and starvation. The wise Being who controls the universe has so made the creatures that live on the earth that those which have the weakest offspring have the strongest parental affection. Have you ever found a turtle's egg in the sand on the bank of a river when you were rambling in the



SOCIAL ORGANS LARGE. PRES. E.

country, and on breaking the shell found a lively little fellow who would scramble off, if let loose, and plunge into the river? I have, and took much pleasure in seeing how quickly the little thing made itself at home in the water. The mother turtle was not there to look



after the comfort of her child, and, in fact, it was scarcely necessary, because as soon as a young turtle hatches, it is able to provide for itself. Turtles have little parental instinct. The mother-hen that has just hatched out a dozen chickens, how proud and fierce she is! You must not go very close to her little downy peepers, for she might fly in your face, because of her anxiety and anger at your presumption. Some of the most cruel animals, like the tiger and panther, show astonishing devotion to their young, and will not leave them when attacked by hunters, and few intelligent

ing as the most refined of the European peoples. The Caribs are very poorly-endowed in brain, and are very fierce and savage, but they have very strong Parental love. Their heads show the development, as the back part extends out something like an acorn, and they are generally very kind and attentive to their children.

The organ is in the center of the back head and low down. Perhaps you have noticed a little button-like projection at the lower part of your skull just above where the skin of the neck joins the scalp? That is a bony growth called



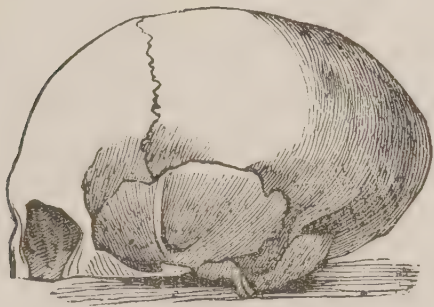
"SO GLAD TO SEE PAPA."

hunters will go near such animals if they know they have very young cubs, because they are so fierce and cunning at that time. In men, this instinct is beautifully shown; it matters not the race or people, as children are born to them in the same way and are the same helpless bits of humanity, the parents, especially the mother, take delight in their care and nurture. The race that is lowest in moral sentiment and intelligence, may exhibit as much of this feel-

the occipital spine. Right above that in the margin of the brain lies the organ we are talking about. Whenever you find a person with a head projecting back in outline like that of the picture, you may be sure that his or her interest in children and pets is strong. I meet some pretty rough men at times who don't appear to have much kindness or sentiment in their nature, but let a little child come in their way, and they are at once melted down; they become as sim



ple as children and will do anything for it. A story is told of an old criminal who had been sent to State prison for a long time, and there the chaplain, a very earnest man, tried to reform him, and worked over him for a year or more in



SKULL SHOWING LARGE PARENTAL LOVE.

vain. It seemed to the minister that he was beyond the influence of a kind and sympathizing word, that he must give up trying to make anything of him, because the hardened convict would ridicule everything religious, and swear at the chaplain for "bothering" him. One day a gentleman visited the prison, bringing in his company a little daughter but eight or nine years old, and as they were going through the ward in which the convict was confined, the warden pointed him out and said a few words about his crime and character. The little girl heard what was said, and, letting go her father's hand she ran to the prisoner, and holding out her hand, said, "Poor man, I am so sorry for you." The fellow was taken by surprise. He looked down at the child in his fierce, cruel way, but seeing only pity and real concern in her innocent face his look gradually changed, and he seized her hand and burst into tears. From that time his character was changed and he became an orderly, respectful man. Through his love of the young his tender feelings, so long walled in by a casing of harshness and selfishness, were reached, and he yielded to efforts thereafter for his improvement.

Women have more of this feeling than men, and their heads show a greater de-

velopment as a general thing in the place where the organ lies. This is a perfectly natural thing, because to woman falls more of the care of the little ones of our homes than to men; the mother must sometimes undergo a great deal of trial and sacrifice for her children, and she does it willingly and without complaint.

The man in the picture must be a good father. On returning from the labors of the day, wife and little ones are at the door to welcome him with joy. The artist has given us a little scene of home joy that is quite delightful.

A funny incident occurred to a well-known professor of Phrenology a few years ago. He told a man who came to him for an examination that he had very large Parental love, and would make an excellent "stepmother." The man laughed, and said that was quite right, because he had eight children of his own and had adopted eight others; he wanted a house full, and had them arranged at meals so that every other chair was occupied by one of his own blood—and he was very proud of them all. We don't often find so strong an example of the faculty as this in men. Those who manage orphan asylums and children's homes successfully, have a good deal of it, and you would expect to find the organ pretty well developed in a good teacher's head. EDITOR.

FACE OF WOMAN.—There are few women who, if they have exhibited the judgment and tact which generally command a certain measure of happiness in life, arrive at middle life without acquiring an expression of face which is often no bad substitute for actual beauty. Character and experience leave their mark upon the feminine countenance more conspicuously than time itself, and when a woman has passed the age of thirty her face proclaims, with increasing distinctness, whether she is a daughter of wisdom or folly.



## TRINIDAD.

## THE COUNTRY AND THE PEOPLE.

"THERE is no end to the possibilities of a winter spent in roaming about and over these beautiful tropic isles," wrote one who had visited, sketched, and journalized through five months of sunny weather, while New Yorkers, and our brothers still farther north, were wading through snow, facing blinding storms, and breasting fierce winds in burdensome wraps that could not quite bar out the chilly fingers of King Frost, not King Winter, for he can be as bland as May if you know where to find his May-day palace.

climate, delightful atmosphere and abundant foliage make them seem a very paradise in comparison.

The only fear was that in undertaking the proposed trip it would be necessary to be content with sailing-vessel accommodations. Gladly did we learn that the American tourist had demanded and secured the services of a reliable, commodious steamer and so we hastened our departure, feeling sure of comforts by the way. Ugh, what a morning! November, as he is often seen in New York, wore his most disagreeable face, and



THE GOVERNOR'S RESIDENCE, TRINIDAD.

The sentence was unusually acceptable to the eyes of an invalid of whom doctors had said, "There is small hope of improvement except in a warm climate." "We will seek the tropic isles at once before the snow flies and the Ice King reigns," said the invalid to her household.

Within a week's sailing from New York city, with its slush, and fog and a thermometer that is rarely of the same opinion for three consecutive hours, lies the Carribean Archipelago, known as "the Lesser Antilles," where an equable

blew his coldest breath down through the Narrows after us. Evidently he had been recruiting in Manitoba, but how suave he became when we were two days out, and how he cajoled us into leaving winter wraps below decks and pacing the deck in September clothing. When at length through "the Dragon's Mouth," we enter into Paria Gulf and are landed at Port of Spain we forget that it is not the month of June, for it is June weather with more than June sweetness of air, for the luxuriance of flowers sweetens every whiff of breeze that goes



about almost as lazily as the natives do. The buildings seem especially odd as the character of the several successive rulers of Trinidad are manifest in the forms of the buildings. The oldest, Spanish, next French, Spanish again and last British, with a tinge of African in the huts of the lowly. After many tumults and much bloodshed the island is under the domination of England, the third conqueror of this small bit of land, with its area of only about 1700 square miles, of which but a comparatively small proportion is cultivated, and that not to the extent which is quite easily attainable.

who was an invalid in New York, is soon engaged in sight-seeing with an avidity and satisfaction which will ever after give a comfortable sense of well-used time.

One of the curious things which puzzles the student of nature is the velocity of the currents which flow through the *Serpent's Mouth*, or the southern opening into the Gulf of Paria. Trinidad is essentially South American, in topography, vegetation, and climate, of course, of nearly the same meridian and latitude. While very fair drawings of the scenery, and portraits of the natives can be ob-



CLUMPS OF BAMBOOS.

The marshy southern coast of the island is bordered by a thicket of mangrove which reaches far out from the true shore, ever finding in the shallow water a place for the rooting of its pendant branches. Some years ago these mangrove thickets afforded cheap homes for a tribe of Indians, who built huts in the branches and lived by fishing, exchanging their surplus "catches," with the island inhabitants, for other needs. Many of the tenantless huts still cling to the trees.

There is so much to be seen that is pleasing to every sense that the tourist,

tained, they all lack the spirit which delights the visitor. What sweet, reviving air, what peace and quiet, what exhaustless perfumes, what delicious fruits! They spoil the palate for New York's marketed oranges, bananas, and grapefruit. Ah, you have not eaten of tropical fruit in its perfection until you have bought it at the garden gate of a Trinidad plantation, from a sweet-voiced native, and eaten it in the shade of a plantain after a walk of several miles, or a row against the tide, over the translucent waters.

We shall not venture back to New



York until March has blown out all her gales. "It is quite too delightfully

The temperature in summer runs from 74° to 86°; in winter from 70° to 81°, consequently it is quite possible to "live out of doors."



CLOCK TOWER, TRINIDAD.

splendid here," our Bostonian neighbor declares. We wonder, "why do not a number of wealthy Americans organize a Trinidadian-American Colony, build pretty homes here in these native groves, and feast on fresh fruits and vegetables of their own raising while North-winter (we shall be obliged to coin a designation) is preparing for North-summer fruitage, by freezing, raining and thawing that part of the earthly domain.

The soil is largely deposit brought by the swift-flowing Orinoco, hence its richness, for it is proverbially the rich soil that migrates.

Hon. Mr. Thurnley, writing of Trinidad some forty years ago, shortly after the emancipation of the slaves, said: "The island of Trinidad alone, if properly cultivated, would supply the civilized world with sugar, and could be made the source of vast revenues to Great Britain." The lazy, easy-going natives do not appear to dream of the Golconda over which they walk so heedlessly. There are strong hints of volcanic conditions in the bubbling mud springs, and more especially in the lake of asphalt with its calm borders and seething, smoking, boistrously bubbling center.

however, noted for their zealous piety, religion being more a matter of form



A COOLIE WOMAN.

than true experience. A little shy of strangers the native is yet affable and ready to grant any favors that do not



require much exertion on his part. The educational facilities of the island are not as extensive as one would expect to find after the many years of British rule. Probably, however, that is largely owing to the lack of enthusiasm in the mental make-up of the mass of the people. The costumes are simple, the decrees of fashion are not tyrannical, but the love of color which is everywhere found in dark races, blooms out in Trinidad in gay kerchiefs, bright ribbons, and dangling, jingling jewels; and yet the most elaborately appressed damsel may not have on a pair of stockings.

The eyes of the creoles are especially noticeable. They lack the dangerous fire of the Castilian, the laughing charm of the Genoese, but have the sweet, soft, wooing light of which one catches a glimpse now and then in Turkey.

A. E.

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### THE WINTER ROSE.

There is one little flower that I love right well,

Our hearts are drawn together,—

'Tis my little red rose, O my winter rose!

That braves the stormy weather,

We have lived through the dark, through the gloomy days,

We'll live till sunny weather.

I have flowers so gay, in my fair parterre,

That bloom through summer only,—

At the first chilling blast they will fly away  
And leave me sad and lonely.

But who cares for the friend, who in sorrow's hour

Heeds not that we are lonely,

But of thee, who hath seemed like a friend to me,

I'll sing and cheer the dreary;

And the hopes we will raise, O my winter rose,

Of these who're worn and weary!

There is hope still for you, there are bright days yet,

For you who toil, so weary.

Oh, I care not for all of the *summer* friends,  
Who troop so gay together;

Only give me the friend, Oh, the heart's warm friend,

Who'll dare the wintry weather!

For the friend that we love, Oh, the faithful friend,

Will stay through stormy weather!

GRACE H. HERR.

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THE MANLY MAN will always be the welcome man in society. Others may, from special gifts of conversation, anecdote, or fair exterior, be favorites for a time, but the one who remains firmly fixed in the regard and esteem of society, is the man who has the inward graces of true manhood. *His* welcome will never wear out. His *family* life will be equally blest. The political community, the social sphere, and the family will appreciate such a character and be benefited by it. He will be a constant and efficient pattern for his children, and they will grow up to be the substantial supporters of the country's noble institutions. Most of the children who become evil or useless members of the community, who become the great host of the loose and crooked, are those that have loose and crooked fathers, men who live from expediency and not principle, and who bring up their children to the same gypsy morals. But the manly man will have more than the homage of his fellows. He will have the approbation of his own conscience. He will feel at every step the unspeakable luxury of knowing that he is doing right, that he is fulfilling his manhood's requirements, that he is rising toward God, and not shrinking toward Satan. There is no such joy this side of heaven as that of the clean heart, for it is the pure in heart that see God. The manly man carries with him an inexhaustible fountain of joy and peace. He finds in daily experience that wisdom's ways are ways of pleasantness and all her paths are peace.—Howard Crosby.



## TO THE GODDESS OF LIBERTY.

Standing where the radiant morn  
Was first upon thy forehead born,  
When, at the dawning of the day  
Thy foes—as shadows—fled away,  
Where ocean and the rivers meet  
Around thy rock—pedestalled feet,  
From distant hill and farther shore  
Their deep libations there to pour,  
We welcome France—the World in thee,  
Goddess by the orient sea ;  
*We welcome France—The World in Thee !*

We worship at no idol's shrine,  
Nor even, Goddess, bow at Thine ;  
The templed groves, profaned of old  
By heathen-worshipped gods of gold,  
Provoked the true Jehovah's ire  
To smite them with consuming fire ;  
But benediction from thy brow  
Bend on us here while low we bow,  
And worship Him who gave us thee,  
Goddess by the murmuring sea ;  
*And worship Him who gave us Thee.*

Colossal image on the sky !  
As they who saw, uplifted high,  
The brazen serpent—let us not  
Forget the truth, by them forgot ;  
By righteousness a nation's healed,  
By right revered, by wrong repealed—  
Let multitudes, that round thee draw,  
Behold in thee the symbolled law,  
And learn in looking up to thee  
How high a thing is Liberty !  
—Goddess by the orient sea—  
*How high a thing is Liberty !*

Majestic figure of the land,  
Whose gate thou guardest, ever stand  
Upon thy many-bouldered block,  
The symbol of the eternal rock !  
Though other stars from heaven fly,  
Though other light fades from the sky,  
Still glow thy torch, still shine thy star,  
With quenchless ray, serene, afar,  
Till ages yet to come shall see  
How strong a thing is Liberty !  
—Goddess by the eternal sea—  
*How strong a thing is Liberty !*

Thee, goddess, far upon the blue  
Of time the sages saw, and knew  
The star that led the Magi's way  
To where the world's Child-Savior lay :

The star that lit the prophet's dreams  
Was that that on thy forehead beams,  
And now fills up the horoscope,  
Completes the vision of their hope ;  
In westward moving o'er the sea  
To light the brow of Liberty ;  
Goddess by the shining sea—  
*To light the brow of Liberty.*

Daughter of Heaven ! let now arise  
The voice of singing to the skies,  
As when upon the Eastern plain  
The shepherds joined the glad refrain  
Of "Peace on earth, good will to men ;"  
Repeat the gladsome song, as when  
The morning stars together sang,  
Till heaven's responsive echoes rang  
With all the music of its spheres,  
The anthem of thy coming years !  
—Goddess by the sounding sea—  
*The anthem of thy endless years !*

Goddess of the uplifted hand,  
Of gathered robe and stature grand,  
Though Art's great triumph still is thine,  
The hand that reared thee is divine ;  
The torch thou liftest on our sight—  
Filled from the word "Let there be light,"  
Oh, ne'er that torch inverted be,  
Still upward light us Liberty,  
Till Freedom's summit all have trod—  
The freedom of the sons of God ;  
Goddess glorious by the sea—  
*The freedom of the sons of God.*

H. P. SHOVE, M.D.

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GIRLS THAT ARE LOVABLE—Girls without an undesirable love of liberty and craze for individualism ; girls who will let themselves be guided ; girls who have the filial sentiment well developed, and who feel the love of a daughter for the woman who acts as their mother ; girls who know that every day and all day long can not be devoted to holiday-making without the intervention of duties more or less irksome ; girls who, when they can gather them, accept their roses with frank and girlish sincerity of pleasure, and, when they are denied, submit without repining to the inevitable hardship of circumstances—these are the girls whose companionship gladdens and does not oppress or distract the old, whose sweetness and ready submission to the reasonable control of authority make life so pleasant and their charge so light to those whose care they are.



## LANGUAGE.

## ITS HISTORY AND ANALYSIS.

**L**ANGUAGE enables man to communicate, by means of articulate and inarticulate sounds, not only his thoughts, but his feelings and sentiments. To talk is natural, but a special style of speech is artificial and conventional.

Before and beyond speech there is a natural language of motion, attitude, gesture, and expression of features. There is also a natural language of inarticulate sounds, which is common to all tribes of men, and some of these inarticulate sounds are made by the lower animals. The groan is universal. It does not need classical learning to appreciate it. The lowest human being on earth, the wildest savage, appreciates it as readily and accurately as the wisest philosopher. The sigh is bounded by no lines geographical or political. The laugh everywhere on the globe is the same. Even animals understand this, and the groan and sigh correspond to the voices of many of them. The laugh is peculiar to man. The child of the German, the Italian, the Spaniard, the Frenchman, the African, the Patagonian, and of the Choctaw, cry alike. So that the groan, the sigh, the cry, the laugh are universal language, and do not need to be learned. They express the same wherever heard, and need no explanation.

Birds have a language which they understand. We call the gabbling of geese, the chattering of magpies, and the clatter of sparrows, mere racket, but there is no doubt they communicate pretty clearly with each other. Dogs, cats, horses, oxen, lions, tigers, and wolves express by sounds ideas which they comprehend. They may be simple; but if a wolf wants help to attack a man or a horse, his bark expresses it to all the wolves within hearing. There is an intelligence among animals, and facility for communicating with each other, which far surpasses the general belief on the subject.

When the domestic hen proudly,

happily, and anxiously, steps forth from her first nest, with her brood of chickens, she gives a motherly "cluck," at frequent intervals, and the chickens seem to understand it. To them it seems to say, "Come, this is the way. Here am I. Here is protection." Finding some morsel of food, she gives a sharp, short call—the first time she ever uttered it, and the first time the chickens ever heard it. They comprehend it instantly, accept its meaning, and however much they may be scattered from the mother, they run. Where? Under her brooding wings? No; but to her beak. Each one knows that a precious morsel is to be had, and that there is the place to find it. And within the first hour after the mother has left the nest with her brood, she will scratch and the chickens will run to see what she has found. They will answer her call as we have stated. And if she gives the warning of danger from their common foe, the hawk, one outcry will make every chicken hide in a moment. Not one of them will remain in sight. They have instantly crept into some crevice, or under a leaf, out of sight of hawk and man. Then the hen cackles in alarm, and as long as she continues it they keep hidden; but the moment the danger is over, and she gives forth again her motherly utterance, the first "cluck" brings every chick from its hiding place. Shall we be told that these birds, inexperienced as they are, do not understand their mother? that the sounds she utters are not thoroughly intelligible to them, and that, too, the first time they are heard? We think chicks are a good example for children in respect to implicit and instant obedience. So much for natural language.

## ARTICULATE AND ARTIFICIAL SPEECH.

In this connection we have chiefly to do with articulate and artificial speech.



Speech of some sort is natural to men. The different tribes and nations of the earth have languages with more or less generic resemblance, but which, on the whole, are different. It seems a little singular that any healthy, normal, well-developed man on this planet, should meet another man, well-endowed with similar faculties, and they not be able to communicate with each other; but let them stay together and each man will learn the other man's language. Two lions, tigers, wolves, dogs, eagles, hawks, geese, hens, or sparrows would understand each other. Perhaps the different tribes or varieties of lions, wolves, dogs or birds might not communicate so as to understand each other. Let the German and the Englishman meet, and they will not be long together before each will learn how to express his wants in the other's native language. A child born into a family, or if adopted into one with a language different from that of his father and mother, will, in two years, understand nearly anything that is said to him, and be able to communicate his thoughts with more or less freedom and clearness; and in five years the child may have learned five languages, and speak each with much facility. We who speak it do not wonder that an English child learns the English language, or that a German child learns his mother-tongue; but when a child is favored with an English-speaking mother, a French governess, a Spanish nurse, a German cook, a Swedish waiter, and a Russian coachman, we find that he will pick up all these languages and speak them. Elihu Burritt, who was called "the learned blacksmith," learned to read fifty-two languages, by studying eight hours a day for many years, while he worked on the anvil eight hours, and spent eight hours in sleep and recreation; but a child, with its inexperience, and immature life, and without culture, can pick up more than one language a year

for the first five years, if it has an opportunity.

The vowel sounds—*a, e, i, o, u*—are found in all languages. When we come to the consonants there is more of the artificial, or conventional. The German finds it difficult to pronounce, as the English do, the sound represented by the letters *th*. The Frenchman and the African will give the sound of *z* or *d* in the room of *th*.

#### WORDS DO NOT MEAN THE SAME TO ALL.

A single, national language seems to be very definite; but certain it is that all people of a given nation do not understand words in the same way. There are shades of meaning which a man of one temperament and organization will apply to a word, and other persons will understand it a little differently, because they differ in their organizations. The word "courage" does not mean the same thing to a timid, craven, cowardly person that it does to one who is brave, generous and magnanimous. The word "fear" has an intensity of meaning to one who is excessively sensitive. But a man who is hardy, healthy, and well-organized, recognizes in the word fear something that is to be guarded against, of course, but it does not excite in him such emotions as it does in the person organized on a more sensitive and excitable pattern. Love, hatred, pride, ambition, beauty, elegance, respectability, generosity, are words full of meaning to those who have great strength in the mental elements out of which these sentiments grow. The words great, small, rough, smooth, pretty, ugly, are understood measurably by every person of common intelligence, but what different shades of meaning they attach to these words! The man who is accustomed to cut granite, or to hew logs of timber, or to construct turnpike roads, uses the word "smooth" with a much more limited meaning than he does who is a steel-en-



graver, a silver-plater, a goldsmith, or a piano-case maker.

#### DIFFERENT STYLES OF SPEAKING.

The facility with which one speaks that which he thinks and feels indicates the function of Language, but the style or characteristics of the language which persons use is, of course, varied and colored according to the temperament, strength and peculiar combination of the other traits. A man with pride and steadfastness will become familiar with all the words born of dignity, authority, and power. One who is severe will become master of, and give special emphasis to, the words which relate to force, courage, severity and acrimony. One who is social will learn all the lore of love, friendship and affection; will have all those adjectives at his tongue's end which savor of sociality, or serve to illuminate those subjects which minister in that domain. Those who hunger for applause will speak eloquently of respectability, of good society, of style, elegance, and whatever ministers to ambition, and will be adepts in the use of those words which carry the unction of flattery.

#### THE SLY AND CAUTIOUS TALKER.

A man who is prudent and cunning will be specially familiar with, and employ with great effect, all words which relate to fear, anxiety, solicitude, policy and guardedness of conduct and expression. He will learn how to shave a subject very closely without hitting it; how to go gracefully around those crooked, unsavory phases of life which may not be laid open or exposed. In short, he will learn how to talk and say nothing; and how not to commit himself. He will button-hole a man and take him to some out-of-the-way place, and whisper suggestions, instead of uttering courageous and manly facts and opinions. Another person will drive right onward in the out-spoken expression of the very core

of the subject; will talk loudly and not care who hears him. Those in whom the æsthetic prevails will be inclined to speak of the beautiful, the sublime, and the poetical; will incline to exaggerate and employ the superlative degree of comparison. To them things will be perfectly splendid, gorgeous and august.

Persons with less of the poetical and imaginative will be calm, accurate, dry, very realistic. Their style of language will resemble a grape-vine in the month of March, pruned close to the trunk; while the former will have a style resembling a grape-vine in the month of August, with its umbrageous foliage and laden with fruit. He knows how to develop from the dry stick of truth a great deal that is flowing, showy and fragrant. Those who are strong reasoners are inclined to use words that are solid and ponderous. They will be realities. Their language has sturdy verbs and nouns. Webster illustrates this style in his masterly speech in the Senate, in reply to Hayne, of South Carolina.

On the other hand, those who observe more than think, are apt to have a redundancy of descriptive words, which unfold and give varied shades of meaning.—*From "How to Teach."*

WHY WAIT? Hundreds of people who in their very souls really do love, esteem, reverence each other, live a barren, chilly life, side by side, busy, anxious, preoccupied, letting their love go by as a matter of course, a last year's growth, with no present buds and blossoms. The time is coming, they think, in some far future, when they shall find leisure to enjoy each other, to stop and rest side by side, to discover to each other these hidden treasures which lie idle and unused. Alas! time flies, and death steals on, and we reiterate the complaint of one in Scripture—"It came to pass, while thy servant was busy hither and thither, the man was gone."

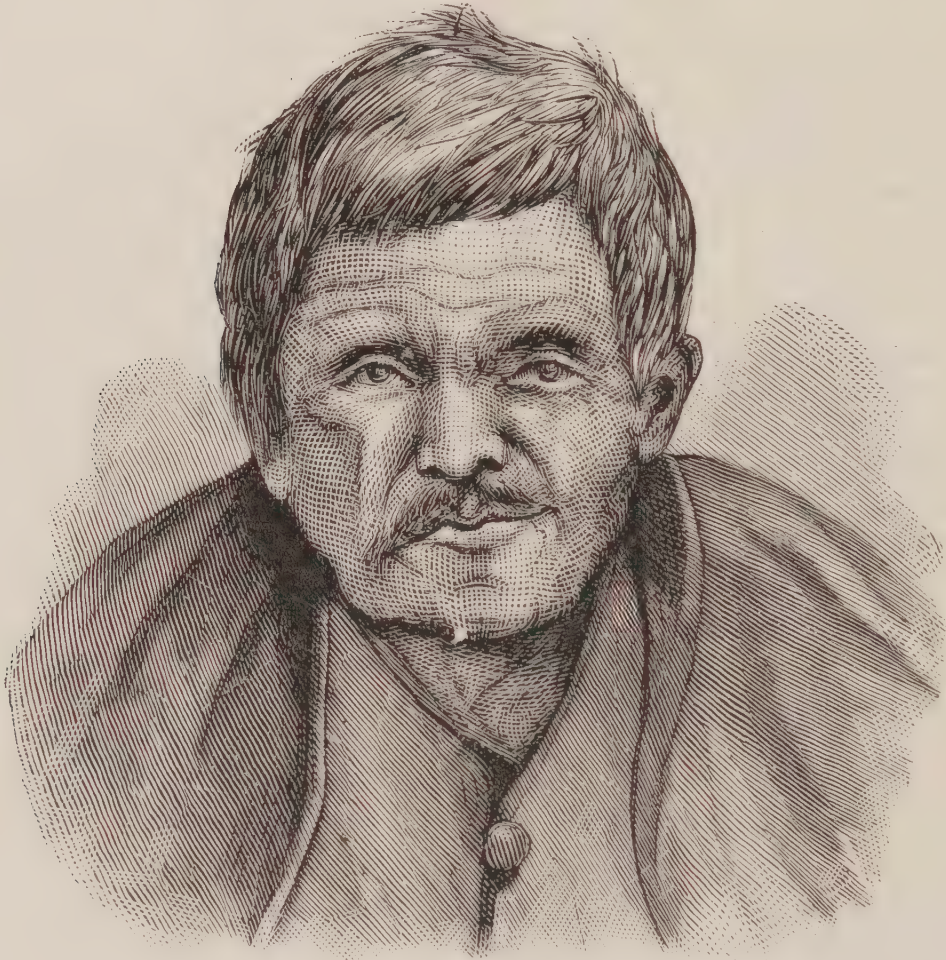


## AN INTERVIEW WITH A WOLF-MAN.

**I**N school days I read the story of the wolf-reared children, Romulus and Remus, and the founding of Rome. Later in India I heard that at such a place or such another city a wolf-boy had been seen ; but even in India, where people and wolves are most abundant, wolf-reared children are rare. At last I have seen and conversed with one for myself.

high-pitched and whining tone. It was not disagreeable or in the least calculated to frighten the most timid, save by its strangeness. It reminded one of the voice young children sometimes assume, when in a half-laughing, half-crying, teasing and petulant mood.

This man was evidently between twenty-five and thirty years of age, of medium



A WOLF-MAN. FROM A SKETCH MADE ON THE SPOT.

As I stood near a pillar, on a broad veranda in Cawnpore, a friend said to me, "Do you see that strange creature?" A step forward brought within view the most animal human being I had ever seen. The first impulse was to rush in doors, but curiosity and my friend's speaking held me.

"He is a wolf-reared," he continued, "and has the strangest voice. Listen while I speak to him."

In response to some simple questions in Hindustani the wolf-man replied in a

height and fairly well developed. For a beggar, he was well dressed. He was of a dark-brown color, but not nearly so dark as many of his country men. He had a scanty beard and mustache with rather heavy side-locks. His hair, though combed after no fashion, could not be called untidy. His teeth were white, strong and even. He had evidently taken kindly to habits of personal cleanliness. His face was greatly disfigured by an uneven scar from the corner of the right eye nearly to the low-



er jaw. It must have been frightfully torn by some wild animal, and nature had been the only surgeon to attend him.

We asked him a few questions, and as the morning was growing hot, dismissed him with the pice he had learned to expect every Saturday at my friend's house. But we grew more and more curious about the wolf-man, and in a day or so sent for him.

What we learned from him was of comparatively little moment, but it was strange to see this creature so indelibly marked from long companionship with wild beasts, with bloodshot, blinking eyes; red, lolling tongue, tilted head and scarred face, and yet manifesting intelligence, and the emotions of affection, grief and reverence. I could only regard it as curious and rare evidence that there is that in man, however debased his body may become, which forever places him on a different level from the brute.

All the wolf-man's recollections dated from the time he "went on all fours and ate raw meat." Of that time he seemed to have nothing to say. He remembered how crooked and lame his legs were when he was found in the jungle and taken to the hospital, and that it was a long time before he could walk well. Pointing to my daughter, a rather tall girl of ten years, he said he was about her size when "Rose Sahib" found him in the jungle, going on all fours and eating raw meat," and immediately began to indicate how this was done with a perfectly natural, animal motion. After a long time in the hospital, "Rose Sahib" became his "papa—mamma" and kept him. He worked in his garden and attended the children when they went out for their walks. He spoke of this family with much affection, his voice grew more whining and with his cloth he brushed supposed tears from his eyes as he spoke of the sad day it was for him when his "papa—mamma" went to England. After this one or another of

the English had befriended him, but for the most part he had lived in the bazar by himself.

I attempted to find out if he was capable of religious emotion, and asked what he knew about God. He comprehended and immediately began reciting, with folded hands and uplifted eyes something concerning God and His dwelling place. More than this he did not attempt, and at once reassumed his usual position, with lolling tongue, eyes blinking like a wild beast's, and fingers of both hands held near his lips, like a timid child accustomed to bite its fingernails.

The wolf-man was greatly pleased with our artist's attempt to sketch him. A better sitter could scarcely be found. The artist was unable to speak Hindustani, but the wolf-man obeyed her slightest indication as to position. As we watched him, we could but think of an intelligent, kindly dog, with a human beings power of concentration and self-control.

Inquiries among the natives showed little except a spirit of aversion for the poor creature, though none could tell that he was ever dangerous except on one occasion, when he had chased and bitten a woman, who was angrily driving him from her door. The wolf-man was best acquainted with an animal's method of defense, and evidently had been provoked by what must have seemed to him most unreasonable prejudice. Others told that he always licked his jaws on seeing young children, but to a fair observer this seems to be a mistake. His voracious look, occasioned by his blinking eyes and lolling tongue, did not seem more marked in the presence of children than at other times. As an eater of raw meat, and the companion of wild beasts, bearing the ineffacable marks of that companionship, he would never be regarded by the Hindus, as other than uncanny and a sort of ogre. They give him a bit to eat, or a few pice to avert any evil influence he might exert if not propitiated.



An elderly native teacher, who could speak some English, happening to pass, we inquired of him of the wolf-man's early history. He knew little except that for years there was a rumor that a wild child, whom none could capture, had been seen in the jungle with wolves. Rose Sahib had succeeded in seizing him, but all who had cared for him at that time were gone away. A lady in the station had of late years been considerably interested in him. He asked the wolf-man some questions about her, and in the course of our conversation, mentioned her name several times. After a little pause the wolf-man began to whine and wipe his eyes. He was fearing that the teacher might have told me something unfavorable of his "mamma;" she had been very kind to him, and he would only have her well-spoken of. A note of inquiry addressed to her brought the following answer.

"I am very sorry I can not give you any information about the man you write of. I gave him food, etc., for sometime, but he behaved very badly in every way; was most ungrateful, and a great drunkard, and I have not seen him for months. Although he left some clothes here he has not been near me."

Poor wolf-man, by his very sins still proving his manhood. We left Cawnpore the next day, but have often questioned since which were kinder to him, the wolves who reared him, or those humans who made him a drunkard.

MRS. I. L. HAUSER, Bareilly, India.

AN English surgeon who was stationed in India for several years, relates a pathetic incident of a wolf-child, that came under his professional notice, and is particularly interesting in connection with Mrs. Hauser's account. The surgeon writes:

"Futtehpoore is a small civil station seventy-three miles northwest of Allahabad, and was the scene of the Nana's first check by Havelock. The American Presbyterians had and have a mission

there, with orphanage attached, and this was in my charge as civil surgeon, in pre-mutiny days. The mission and orphanage were presided over by the Rev. Gopinath Nandy, an old man, who fell subsequently into the rebel Moulvi's hands at Allahabad, and was only saved from death by Brigadier-General Neil's force.

"To this Orphanage was brought by the police, early in 1857, a child, which they declared had been found in a wolf's den among the ravines of the Jamna; and I was summoned to see it. I obeyed with alacrity, for here was a proof in point of what at school we had been taught to regard as fabulous, the suckling of Romulus and Remus by a wolf. This human cub was a native child about six or seven, filthy in aspect, disgusting in odor and habit, with matted hair, and timid, suspicious face. Mr. Nandy told me that the child had no speech, though not dumb; would wear no clothes, and would eat nothing placed before it. Its efforts to escape were incessant.

"Confronted with this wretched object I placed a hand on his head, and said a word or two of kindness in Hindustani; but got no response beyond a kind of cackle. The poor child was a burden to the Padre, who knew not how to manage it. I recommended non-coercive confinement, with lots of straw and blankets, and a gradual introduction to civilized food, cooked bones being the present substitute. At my next visit I found dismay on the worthy Padre's face; nothing would succeed with the wolf-cub, and the whole establishment was upset in looking after him wandering about the garden. On seeing me he ran up and seized my knees, and then the *one* vocable of his language escaped him as he looked upwards at me, and that was "sag." The memory of home and home-food had dawned upon him as he laid at my feet a handful of the weed. Poor outcast! I again patted him, and spoke kindly to him, but in vain; the



burden of his replies, or rather cackles, was sag. Taking the hint, I recommended sag and rice as the diet; and strange to say, it succeeded, and opened further the flood-gates of memory; for the word *bap* (father) and *amma* (mother) now recurred to him. But the diet, simple and nutritious as it was, proved fatal to him; intractable diarrhoea set in and under its wasting influence, affectionate docility returned. I could not get away from him except with

difficulty: and repulsive though he still was in sight and odor, my heart yearned for the poor outcast, now fast dying. At the last moment he tried to grasp my knees; and was evidently pleased when I placed my hand on his head, for he lay quite still, breathing out his life. Suddenly with a shudder the word "sag" escaped him, and with that password on his lips, he set out into the great unknown."

## A DIVIDED REPUBLIC.

(Concluded.)

UNDER these circumstances they made such laws as suited them. The Territorial Legislature, consisting wholly of women, speedily passed bills giving women the right to vote. There was no need to pass prohibition measures, as the saloon-keepers had gone East. Peace and tranquillity prevailed through all the borders of the feminine Republic. There were no policemen, for there was no disorder, but thrift, sobriety and decorum ruled, and the days passed in calm monotony.

Very different was the condition of affairs on the Eastern coast. The men for a while after the departure of the women went bravely about their vocations, many of them, as we have seen, pretending that they were glad that the women were gone. But presently signs of a change appeared. While the saloons did a roaring business the barber shops were deserted—men began to say there was no use in shaving as there were no women to see how they looked; the tailors also suffered, for the men grew careless in their dress; what was the use of fresh linen and gorgeous cravats with never a pretty girl to smile at them? White shirts rapidly gave place to red and gray flannel ones; old hats were worn with calm indifference, even on Fifth Avenue, and after a time men

went up and down to business unshaven, and slouchy.

Within the houses there was also a marked change. One of the first sources of rejoicing among men had been that now they would be rid of the slavery of dusters and brooms, and after the women were gone the houses were allowed to fall into confusion. As no one objected that the curtains would be ruined, the men smoked in drawing-room and parlor as well as study, and knocked the ashes from cigar or pipe on the carpet without fearing a remonstrance. At the end of some months affairs grew worse. The amount of liquor consumed was enormous, the police force was doubled, and then was inefficient because it was impossible to find policemen who would not drink. Brawling was incessant; the men had become cross and sulky, and murderous rows were of constant occurrence. Burglaries and other violent crimes increased and the jails were over-crowded with inmates.

From the first the churches had been nearly empty, as there were no women to attend them, and after awhile they were all closed until the next Legislature ordered that they be turned over to the State; after which some of them were used for sparring exhibitions, and others were turned into gambling sa-



loons, for draw poker had become the fashionable game, and men having no longer any homes gathered every night at some place of amusement.

The theatres were obliged to change their attractions and instead of comedies or operas, feats of strength were exhibited. The laws against prize-fighting were repealed, and slugging matches took place nightly; dog fights and cocking-mains also were popular and the Madison Square Garden, once the scene of a moral "Wild-West," was even turned into an arena for bull-fights.

It was about this time that Henry Bergh, who had vainly protested against some of these things, was defeated for Congress by a man who had won distinction by catching five hundred live rats and putting them into a barrel in fifty minutes. Matters went rapidly from bad to worse after this. John Sullivan was elected President. The men were about to declare war against all the world, so as to have a chance to use their new fortifications when Flavius, who had never ceased to long for Rose, called a secret council at the house of Cecilia's father and proposed that a deputation should be sent with a flag of truce to the women. To his astonishment and delight the idea was received with wild enthusiasm, and he and the host were appointed a committee to lay the question before Congress.

On their appearance at the Capital, Senate and House of Representatives were hastily assembled in joint session to receive them, and as they entered the hall the air rang with cries and cheers. It was with great difficulty that General Blair, who had been chosen to preside, could put the motion, which was carried with a wild hurrah of applause, and for many moments thereafter the noise and cheering continued; men hugged each other with delight; some tore off their coats to wave them in the air; many wept tears of joy—in short the scene of enthusiasm exceeded that which is sometimes witnessed at a Presidential nomi-

nating convention when a favorite candidate has been selected.

In the fervor of delight which followed all those who had ever opposed the women's wishes fell into the deepest disfavor. It was proposed to expel from the Senate-House Edmunds and Tucker and every other man who had voted against a woman suffrage bill. One member alone suggested that they be banished to the Dry Tortugas with the Rev. M. D. as attendant chaplain.

Calmer counsels ultimately prevailed, as it was discovered that the worst offenders were now thoroughly penitent, and discussion followed as to what terms should be offered to the women to induce them to return. Everything was conceded, everything accepted, and a deputation of the foremost men was appointed to convey their propositions to the feminine Republic.

But when these reverend seigneurs started they found that a vast array of volunteers were ready to accompany them, a throng that constantly increased as the news spread, and the train moved Westward, for men left their farms, their counting houses and their stores, at the joyful words, "We are going to bring back the women."

Reforms in dress took place as if by magic, no man not properly attired was permitted to join the train. The barbers who had all disappeared, most of them having become butchers, were rediscovered, and although rather out of practice, succeeded in putting heads and beards in presentable trim. Tobacco was positively forbidden, any man detected with even an odor of smoke in his garments was instantly sent to the rear. Alcoholic stimulants of all sorts were also strictly prohibited, and draw poker went suddenly out of fashion.

Meantime, in the feminine Republic matters moved on serenely but it must be confessed a little slowly. The most absolute order prevailed; the homes were scrupulously tidy; the streets of the city were always clean. The



public money, which was no longer needed for the support of police officers and jails, was spent in the construction of schoolhouses, and other beautiful public buildings. Artificers of all sorts had been found among the woman whose natural talents had heretofore been suppressed. Female architects designed houses with innumerable closets. Female contractors built them without developing a female Buddensick, and female plumbers repaired pipes and presented only moderate bills.

But despite the calm and peaceful serenity that prevailed, it was not to be denied that life was rather dull. Women who would not admit it publicly, whispered to themselves that existence would be a little gayer if there were some men to talk to occasionally. Mothers longed in secret for news from their sons; wives dreamed of their husbands, and young girls sighed as they thought of lovers left at home.

Certain great advantages had undoubtedly flowed from the new order of things. Women thrown wholly on their own resources had grown self-reliant, their imposed out-door lives had developed them physically. A complete revolution in dress had taken place; compressed waists had totally disappeared, and loose garments were invariably worn. For out-door labors blouse waists, short skirts and long boots were in fashion; for home life graceful and flowing ones of Grecian design were worn. Common-sense shoes were universal. The schools under the care of feminine Boards of Education were brought to great perfection; the buildings, large and well-ventilated, offered ample accommodation, as over-crowding was not permitted. Individual character was carefully studied and each child was trained to develop a special gift. Ethical instruction was daily given and children were rewarded for good conduct even more than for proficiency in study.

Music was carefully taught, and, undis-

mayed by men, women wrote operas and oratorios. Free lectures were given on all branches of knowledge by scientific women who were supported by the State, and debating societies met nightly for the discussion of questions of public policy.

Still, despite all this the women, as we have seen, sent many a thought across the rocky barrier that separated them from the East, and under the leadership of Rose some of the younger ones had formed a league having for its object the opening of communication with husbands and brothers in the masculine Republic.

Thus matters stood when on a soft June morning word came to the Capital from the sentinels on the watch-towers of the mountains, that a great horde of men was advancing up the South Pass. Now across this road, the most convenient to the other world, there had been built a wall in the center of which was a massive gate of silver, and at this point the masculine army had halted. The news of the arrival of the men occasioned great commotion, and a joyful host of women started forth to meet them, so that when Volumia and the other dignitaries of the State reached the Pass, the heights above were filled with a great throng of women who, recognizing in the crowd below sons and brothers, husbands and fathers, were waving joyous greetings, which were answered by the men with every demonstration of delight.

By the order of Volumia the great silver gate was opened, and the envoys were admitted. They were received in a tent of purple satin which had been quickly erected and their leader made haste to lay before the assembled women the terms they proposed.

If the women would only return to their homes the men promised that all wage-workers should have equal pay for equal work; that women should be equally eligible with men to all official positions; that the fortifications should



be turned into schoolhouses ; that the control of the sale of liquors should be in the hands of women, and that universal suffrage, without regard to sex, should be everywhere established.

When the women heard these words they raised a chorus that was caught up and re-echoed by the crowd outside. At this moment, Cecilia, who saw her father just behind the envoys, went forward to embrace him, and Flavius, taking advantage of the movement advanced to where Rose stood beside her mother. Claspings the blushing girl by the hand he whispered :

"At last, love, at last."

Wives rushed into their husband's

arms ; mothers kissed their sons ; the men hurried up from the Pass, the women came down from the mountain ; there were broken whispers and fervent prayers, sobs mingled with smiles, and bright eyes shone through tears, as loved ones separated by the stern call of duty were reunited.

After this there followed a mighty movement, in prairie and forest, by lakeside and river. Over all the land, homes were rebuilt, and society reconstructed. The divided States now reunited formed a Republic where all the people were in reality free.

LILLIE DEVEREUX BLAKE.

### SHAKESPEARE vs. BYRON.

THE history of the human race is like a great chain ; the thoughts of the present are linked to the thoughts of the past ; like the plot of a masterpiece of composition ; whether in music, poetry or prose.

We find in Shakespeare the thought about a man who was born to be hung will not be drowned. This may have been original with the great dramatist ; that is, it may have come to him as spontaneous thought, but investigation proves it to be far older than the age in which he lived. But if Shakespeare rediscovered the thought and regave it to the world he certainly deserves as much credit for it as the other mind who advanced it centuries before his time.

When we come to investigate the mind and age of Shakespeare we find that he was not altogether original in all the thought ignorantly ascribed to him. What we regard as originality of thought was not altogether his greatest gift. He borrowed from others who had gone before him, apparently without the least regard to what, to-day, would be called plagiarism. And herein is where a Shakespeare could not live in this age and receive the honor of Shakespeare of the past.

For he would think it a matter of right to take "Uncle Tom's Cabin" or "Daniel Deronda," or some other noted work of fiction, and dramatize it after his own fashion. Like a man with fine ability as a story-teller, he might hear a story told—then, revise it, add to it, and tell it in his own peculiar manner, using it to float his individual thoughts.

Evidently herein was the secret of Abraham Lincoln's peculiar style. It is very improbable that the stories he told were all original with him. Some he heard, others were incidents occurring in his presence. Another man might never have used these stories or incidents to float certain truths, but a story to Lincoln's mind was just the thing he wanted to illustrate ideas that occurred to him.

Such minds as Shakespeare's, or Lincoln's, are not troubled about hunting up "Authority," or in giving laborious footnotes. They are like great generals in time of war who appropriate whatever may advance their arms and cause ; utilizing material for an entirely different purpose, then that for which it was originally intended. We often see this idea in a patent. A certain man conceives the idea of some mechanical device. He



constructs it, but it is a miserable failure and amounts to nothing. He can go no farther with it, and his purpose is abandoned. Years after, another mind may pick up the idea and reconstruct it after his own conception and reproduce a most valuable instrument. After awhile there appears a person who is familiar with the conception of the first individual. He at once makes the statement that the second man stole the idea from the first man. Perhaps the second man would never have produced the perfected and valuable instrument but for the hint derived from the first; but certainly the world would never have derived any pleasure or profit from the work of the man who failed to make it valuable.

Shakespeare, from all that we can learn of him, was evidently of a cast of mind that appropriated whatever fell in his way if it served his purpose; what he added was just "the one thing needful" to make it complete. Then he was evidently a man without prejudice or bias. Like a great artist he sketched whatever surrounded him and would make his picture complete, whether it was a cathedral, a castle or a hovel—a statesman, a warrior, a fool or beggar. He was quite indifferent to worldly rank or surroundings. What was wanted to make the composition complete was put in; what was not, in his eyes, necessary or valuable, was omitted.

Of late years certain people have attempted to prove that Francis Bacon, and not William Shakespeare, was the author of the works known to us as Shakespeare's.

Conspicuous among them is Mr. Donnelly of Minnesota. These people claim that they have investigated the matter, and that this is their conclusion.

In the first place, truth should not fear investigation; nor does it; but investigation should not be confined to one branch or line of thought. The main line of thought these persons seem to

have followed is that Bacon, being a scholar and generally recognized as a most able man, was much more competent to write these plays than Shakespeare. As we well know the point of argument is first to establish your premises and from this advance to your conclusions. If Lord Bacon were all they claim, and William Shakespeare all they have represented, their case appears very easy to prove; but have they, in this line of argument, *covered* all the ground?

Mr. Donnelly claims that he has discovered a cipher which is so interwoven with the play as to make it bear witness to the fact that Francis Bacon wrote the Shakesperian plays.

He has procured a copy of an ancient folio edition of these plays, or some of them, published in 1623, "seven years after Shakespeare's death." *Seven years after his death!* This point he passes over without comment or concern. To argue this question without taking into some consideration the character of the two men is most absurd. If there were any marked peculiarity in Bacon's character it was a weakness for worldly immortality. He wrote his works in Latin, because in his day it was "the thing" to do. Latin was looked upon as the language that would live when all others were forgotten. But the great Latin tongue has fallen into disuse and the plain and simple English, which this great man would not deign to use, has become the master tongue of the world. Even in this peculiarity and vanity of Bacon can we not read a lesson that puts to flight all the vain boasting that he and only he could have written the masterworks we label "Shakespeare"?

With all Bacon's vanity, combined with his regard for the Latin tongue, and his contempt for the English, the chances are, if he wrote these plays that he would have left them in Latin. But it is claimed that he would not have dared to—that he even did not dare to let himself be known as the author; that he



was even glad, for the time being, to let the world believe that William Shakespeare was the author ; that, from behind the door, he supplied Shakespeare with brains ; that Shakespeare was only a butcher's son, who "was educated at the Stratford village school where only the rudiments of Latin were taught."

It seems by this that Shakespeare knew something about Latin, even if he were a "butcher's son." Now it is a great mistake for these people to assume that because Shakespeare was a butcher's son, he therefore should have been a very common, ignorant person. We know that the majority of the first minds of all ages have sprung from what the world regards a low parentage, and from unlooked for places. Shakespeare's father is said to have been a dealer in wool and a "glover." In those days a glover (manufacturer of gloves) was a man of good position. He was evidently respectable, for otherwise he would not have been able to have married one of the descendants of the Warwicks, by whom he inherited fifty-four acres of land, which in those days was something of a fortune and an indication of good social rank.

Again, to say that Bacon had anything to fear in life, or for his name after death, had he claimed an honorable title to these works, or Latinized them, is absurd. Bacon was not a man at all "slow" to claim for himself all he was entitled to, and it would not be surprising I think, if he were not the real author of much that he called his own writing.

The age is too far distant to obtain many facts, but if there is anything conspicuous in Shakespeare's character it is his indifference to worldly fame. The worldliness on the part of one man and the want of it in the other is another patent point in the argument.

Mr. Donnelly asks, if it is not queer "that Bacon never mentions the name of Shakespeare?" Nothing queer about

this. Shakespeare was not of Bacon's company, and such a man as Bacon would not be more likely to mention William Shakespeare than a worldly envious man of the present day would mention the name of some humble fellow-citizen who was his intellectual superior.

But these plays are full of foreign languages ! Nothing strange in this. As I show in the first part of this article, Shakespeare evidently was not the author of all the material in these plays, in the light we would to-day regard such things. At that time, too, the continental or foreign tongues were more common and even better-known by the English people than to-day. It is evident from all that we can learn of Shakespeare that he was a bright, quick, as well as able person—a person of ready perception. There is no need of argument to prove this. With a little knowledge of the Latin tongue, some Greek, and French, and his evident gift of language it was no wonder that he was able to take an old foreign play and revise it to please the age in which he lived. Then, if he knew not the full meaning of the language himself it was not difficult in London to obtain assistance. There is nothing unnatural or questionable about this. The superior mind needs very little knowledge of a subject in order to utilize it.

It is said of one of our prominent English writers, Charlotte Bronte, I believe, that although she wrote much about society she had very little opportunity to *see* society. Her superior mind did not need to see much detail. She grasped principles. It is very easy for the mind that is able to grasp principles to fill in details. Suppose some person superior as a scholar, yet deficient in practical powers, should read of such a character, would he not be apt to doubt her ability to write so fully on a subject that she had so little opportunity in fact to learn about?

Suppose Edward Everett, and Abraham Lincoln had lived in an age when



it was difficult to transmit in print the record of their lives and works, and they should, on the same day, have appeared on the same platform, as they did at Gettysburg, to deliver an oration on some grand event. Two or three hundreds years pass. The grand oration lives, but Abraham Lincoln, being a poor man and little-known, his name is quite forgotten. How easy it would be for some *learned man* to prove that no such person as Abraham Lincoln could have been the author of so grand an oration as he delivered at Gettysburg, and that no one but the orator and scholar—the orator and scholar of the age—Everett, could have prepared such a masterpiece of oratory. Occasionally a very young person becomes the author of some masterpiece. Bryant, it is said, wrote his “*Thanatopsis*” when he was only sixteen years of age. Had Mr. Bryant died young, or been unable, as have been many promising minds, to gain a public name, it would have been a very easy matter for someone else to have received the credit of this poem. Though Mr. Bryant lived to be an old man he never surpassed his early effort; indeed it is the best known of all his writings, and is one of the few poems that will live and be the means, more than all else he wrote, of transmitting his name to posterity.

But there is another direction in which to seek important evidence—a direction that none of the admirers of Bacon seem to have thought of; and that is the evidence of Phrenology. Admitting that we have no entirely satisfactory likeness of these individuals we have their conventional portraits, and they are as unlike as those of Daniel Webster and John C. Calhoun, or Abraham Lincoln and Edward Everett. No intelligent person, not even a child, old enough to know the difference between a circle and an octagon, would make a mistake in the two—in designating the right one.

Bacon has a high, square head, full in the region of Causality and Imitation:

and a straight nose. Some allowance may be made for this conventional shape, for the reason that those ignorant of nature, always seek to magnify the head of a supposed great man; and they seem to think that they add to the personal dignity of their hero by enlarging his head in this region and projecting the line of the forehead. If they were wiser and would pay some attention to Phrenology they would see the impropriety of this practice. Now, turning to the conventional head of Shakespeare we see a head that is high and full, more like a full-sack. The center-forehead is rounded-up, as though the “*dome of thought*” was of ample capacity and well-packed. It is high and full in the region of Comparison and Human-nature. The head grows higher as we follow its lines backward—is “*full all along the lines*”—commanding at Firmness and Self-esteem, while the Bacon head is quite flat on top and square behind. The Perceptives and Reflectives are well-balanced and the side-head rounded-out in the region of Construction; the nose is delicate and slightly *aquiline*.

It should be borne in mind that these conventional heads have come down to us through persons unacquainted with Phrenology. There was no forming of these heads “*to order*,” to suit the conceptions of some craniologist. But if we were called upon to construct a head of a Shakespeare we could scarcely make better lines than this conventional head so familiar to us.

The conventional head of Bacon would be no more equal to the work of Shakespeare than the head of Henry Clay would be equal to the peculiar labor that would be accomplished by the Webster head. Clay and Webster were both able men; but a man with Mr. Clay’s head could not have done Mr. Webster’s work; neither could the Webster head have done the Clay work. To the non-phrenologist this argument may not appear of much weight, but to



the phrenologist who has studied heads, and familiarized himself with the public men of the world, it is unanswerable.

The square head of Bacon would excel, if it excel at all, in some special line, and indicate the "scholar;" it would not have the universality of the Shakespeare head.

It is well also to note how such a superior man as Milton regarded Shakespeare. Shakespeare died about 1616; only sixteen years later, Milton wrote his very complimentary poem on the great dramatist.

It would seem that Milton at that time should have known something of the man of whom he thus wrote, and been able to have detected in him anything of the charlatan or deceiver, and also to have heard, by word or hint something of any inability on the part of Shakespeare to do the work we credit him with.

The "Baconites" have a difficult task before them. They must prove more than they have as yet attempted; what they have attempted is only a

minor part besides what lies still untouched. This investigation on their part may stimulate a rigid inquiry into the honest claims of Bacon, and they may "carry the war into Africa" so vigorously that the world may begin to doubt if Bacon was not more of a mere translator or robber than the great original philosopher he has been represented to be. Adopting the method of argument of those who would dethrone Shakespeare, it would not take much to overthrow Bacon. It would however seem better in this case to 'let well enough alone.' More than two and a half centuries have elapsed since they figured as actors on the stage of life. The English-speaking world is proud of them; and I think that it will guard the fame of both. We may well be proud and glad that we have their works to guide us.

Let their lights shine brightly and let us gather all the wisdom that we are able to absorb from their great store-houses.

ISAAC P. NOYES.

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### AN UNWRITTEN ESSAY ON LOVE AND MARRIAGE.

THE Professor sat in what was known as the "Brown Study," a room by some curious whim wholly furnished in brown, with here and there a dash of gold in relief of the pervading dun color.

The Professor's No. 9 slippers were elevated at an angle which made his extreme length of figure somewhat suggestive of an italicised interrogation point—his head forming the accentuating dot. He was engaged in obstruse speculation as indicated by the nervous chewing of the tooth-pick he had brought from the breakfast-room, and which served in some mysterious way to the Professor's yearning sense in lieu of the seductive cigar that he had formerly considered conducive to high meditation.

But the complement which the Professor had taken to himself in the bonds

of marriage resolutely discountenanced smoking in the domestic kingdom, and under the reign of his other self he had found the sedative of tooth-picks quite as favorable to mental processes as the bachelor atmosphere of blue smoke which artistically failed to harmonize with the Brown Study, founded under the new dynasty.

Upon the desk of his knee the Professor was jotting down in shorthand the leading points of his essay, lecture, or whatever might be the nature of his study, when a soft, swift step in the outer-passage attracted his ear, and he turned with a luminous smile toward the open door.

There stood a small woman, attired like the room in brown, but with flecks of dull red shimmering over her fabrics like sparks of fire which seemed to need



but a puff of wind to break into lively flames.

On her arm hung various articles of masculine apparel which had been picked up on the way between chamber and study, the Professor having a curious nightly custom of dissolving himself piecemeal in his journey between these points.

Putting himself in fresh regalia next morning, he was oblivious to the wrecks of yesterday's attire, and the careful housewife collecting them under his very nose was responsible for their correct appearance upon his person at a later date.

"Aha! just in time, my hearty," he called, bringing his feet down to *terra firma* with a shock of matters unsubstantial. "I want to read to you the points of my new essay on —. Well, you know, the *Journal of Scientific, Social and Philosophic Thought* desires me to furnish an article on the somewhat worn theme of Love and Marriage, and here are a few leaders. Observe—Firstly—"

Now it was a little embarrassing for the critic to be summoned to office in the doorway with the author's chrysalis of yesterday upon her hands. To meet the emergency she softly wheeled about an antique chair with a convenient central point upon which she set the gentleman's tall silk hat, supported by his dress-coat, worn in honor of a social occasion the previous evening. The somewhat grotesque figure was supplemented by cuffs, collar, and other paraphernalia quietly gathered from table and waste basket where they had been absently tossed, while a pair of shoes basking in the chimney corner were pushed to the front of the chair where they filled the disconnected position of one of the Professor's periods, marking an absent clause which the collector had previously picked up and hung behind the closet door.

"Firstly," continued the Professor, while his wife contemplated her essay on the Evolution of Man, "Love is an

inherent quality in human nature and will have its course in any free, unrepressed condition of life—"

"Or in penal servitude," amended his listener; "as mark, for instance, the case of the female prisoner who, from her third-story window, contrived to spin down messages of love on a spool of thread to the masculine convict working in the shops below; drawing up, by the same convenient go-between, his rapturous response of interest."

"Yes, yes," acknowledged the Professor. "A very good point, serving with other illustrative anecdotes of curious customs and habits of love-making in various parts of the world."

"Including the country where the lover gets on a horse and rides down upon a group of women seizing the desired one by the hair and bearing her off resisting to a jungle, where she becomes his lawful wife unless rescued by pursuing friends," suggested Mrs. Professor. "And don't omit the land where the masculine candidate for marriage is beaten with a club by the bride elect, and who is rejected if he cries out under the pounding."

"That is a land not so very far distant, is it, dear?" meekly insinuated the essayist returning to his notes. "Then I shall follow with a glowing eulogy on the divinely ordained institution of marriage, showing it to be the golden link in the broken chain which is to again unite us to our primal estate in the Garden of Eden. I can not give in brief the beauty and power of this sentiment which will expand in suggestions of the virtues requisite to the attainment of that felicity which is co-existent with the marriage relation. I shall cite such lovely examples of wedded happiness as history and private experience bring readily to mind, rounding up the whole with a poem of which our own blessed union shall be the secret inspiration—an inspiration too fine, my sweetheart, to enter into the coarse fiber of a philosophical disquisition. What think you



of this roughly sketched plan, *ma chérie*?"

"It strikes me," said the small woman in brown, winding and unwinding the Professor's necktie on her slender fingers; "it strikes me I have heard—something—very like this before."

"Oh, no doubt," grunted the essayist. "You can hardly expect originality on a theme so universally canvassed. I suppose there is absolutely nothing to be said—nothing that has not been already said."

"Well, it is true that a skeleton idea is running about in human minds like an active chameleon, taking on all sorts of hues in the changing mental atmospheres which it enters," smiled the brown-eyed critic. "I notice that a man's thought of love and marriage is largely colored, like his image of God, by the dye of his own attributes. It is likely to go through various stages as the man himself advances from passionate to spiritual states, though in the latter it is sometimes too attenuated and feeble to make tangible expression of itself. In the majority of cases you can guess a man's age by his frankly avowed sentiments on the subject of love."

The Professor instinctively put his hand on the bald organ of Benevolence above his generous breadth of brow, his slower process of thought yielding no ready response to these quite impersonal remarks of his curious Other Self, who quietly continued—

"The great trouble in married life is not the lack of wise theories about it. It is the failure to get properly married with one's self before a dual relationship is undertaken. A man whose own masculine and feminine elements of character are not harmoniously developed and mutually active and re-active can hardly expect abiding peace and happiness in taking to himself a woman of equally unbalanced and unharmonious nature."

"I can not agree with you, my dear,"

said the Professor roused to scientific illustration. "The most perfect chemical compounds may be formed from elements incomplete and unbalanced in themselves; and so frequently the most inharmonious creatures find a higher level in the marriage relationship."

"But I think there must be a preponderance of the *positive* on the higher side if we do not get from such a union a mere negative *mush*," insisted the little Professorine, who seemed to be taking the Professor's argument rather boldly in hand. "I am not sufficiently versed in chemical laws to say that no combination of imperfect elements is as grand and wide-reaching in scope and influence as the union of individually complete and independent powers; but I instinctively reason this way. When men—and women—seek, first of all, that perfect balance and poise of character which insures them individually against the dangers of anarchy and misrule, why, then, under the reign of self-government, marriage will become the divine order of which lovers and poets dream. Until that time, it is all a blundering, beautiful, blissful necessity over which we shall rhapsodize, and agonize, and theorize, coming a little nearer, generation by generation, to the Divine Idea in whose image and likeness we are, or shall be made."

"But stay!" apologized the small woman springing from her low seat by the hearth, and pressing a kiss on the Professor's bald Benevolence that was inclined attentively toward her. "Here am I interrupting and intermeddling with your essay on Love and Marriage to the utter neglect of my own work, which the author of 'Sartor Resartus' would call 'A Philosophy of Clothes.'" And gathering up the apparel with which she had dressed the chair she vanished from the room, leaving the Professor to the elaboration of his theme.





### PHILOSOPHY OF LONGEVITY.

THERE is much in modern life that tends to shorten existence and to diminish the probability that a man or woman will reach ninety, to say nothing of a hundred. We lead more exciting and more wearing lives. It is in vain that a person has a splendid constitution to begin with, wears flannel, or the equivalent of flannel, next to his skin, dwells in a warm, dry house, and eats and drinks everything that is good and wholesome, if at the same time he habitually overtaxes his strength, looks upon his muscles as mere machinery to be driven at high pressure, and ruthlessly calls upon his nerves to squander their reserve power when every other source of energy is exhausted. Men or women who intend to be centenarians in these days must combine something of the old mode of life with something of the new mode of living. They must, while availing themselves of all the scientific discoveries and sanitary appliances of the age, imitate their grandsires in the steady and tranquil habits that prevailed before the invention of locomotives and the telegraph. They must have their eight hours of sleep regularly; they must have intervals of repose and vacancy in the daytime; they must spend a goodly portion of their waking hours in the open air. Nor will that suffice; there will have to be regularity

in the hours of their meals, and discipline in the ordering of the dishes of which the meals are composed. We can not believe that anybody will ever live to one hundred who eats a heavy dinner every night of his life at eight o'clock. Champagne in abundance, and Bordeaux or Burgundy *ad libitum*, should be foresworn by persons who deliberately set before them the attaining of their hundredth birthday. Neither, with such an end in view, would the active life of a politician, a lawyer, or a doctor be a sane enterprise. In order to reach that distant goal there must be a training, if not severe, at least regular and unflinching. Most of all, there must prevail in the existence of such a person a tranquil serenity, an unruffled calm. Neither generous passions nor enthusiastic ideals must be allowed admittance. The pulse must never be driven up beyond a certain point, either by work, by anxiety, by fear, or by hope. At the same time, mere stagnation will, in all probability, never enable a person to live to one hundred. There is such a thing as rusting out as well as wearing out. If a candle does not burn brightly enough, it does not consume the wax with sufficient rapidity, and goes out for want of adequate combustion. It is so, no doubt, with the human body and the human spirit. . . .



To make yourself miserable at forty in the wretched ambition to add a few worthless years to your score after you have turned seventy or eighty is surely a poor-spirited sort of game. To spend one's life feeling one's pulse, looking at one's tongue, and asking one's self if one is treating one's constitution quite fairly, is not life at all. • It is to live in a hospital, or, at any rate, an infirmary. Still, there are some persons who are congenitally cautious, congenitally cold, congenitally calm. It is their nature to take things quietly, never to be in a hurry, never to excite themselves. They are content to sit in an easy-chair for so many hours, read an agreeable book for so many hours, drive in a carriage for so many hours when the weather is favorable, and after this manner to regulate their existence by clockwork. They may live to one hundred, they may live to one thousand, but in truth they have not lived at all. The man who really gets the best that can be got of life is the man who, with a fairly good constitution to begin with, is ready to squander it at any moment and on every occasion in a sufficient cause. He keeps no account of profit and loss with his vital energy; he sees work to do, and he does it; he sees pleasure to be en-

joyed, and he enjoys it. He is alive all his life save when he sleeps, and he awakes from each fresh slumber looking the world cheerfully and courageously in the face, and ready, and even eager, to be a combatant when there is a good, honest fight, and a runner when there is a good, honorable race afoot. He may not live to be one hundred, but he may well live to be seventy, seventy-five, or even eighty. He may have a career, if not so conspicuous, yet as active, as varied, and as restless as that, say, of Mr. Gladstone, and yet not be really old when time registers him among the aged. "Better fifty years of Europe than a cycle of Cathay;" and better twenty years of uncalculated activity than the slow pulse and measured step of the circumspect snail that creeps surely on to one hundred. We are not denouncing centenarians. They are like angels' visits, few and far between, and they are too rare not to be welcomed. Moreover, we doubt not that they deserve their length of years. But it would be a misfortune if it was ever thought an object of life to live very long. The object of life is to live, live generously, live bravely. As Shakespeare says, "Ripeness is all."

*London Standard.*

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#### DYSENTERY.\*

**D**YSENTERY is an inflammatory affection that develops in the mucous coat of the large intestines, and is always accompanied with more or less fever of a low character. It is a more distressing ailment than most other bowel disorders, and because it is usually attended with bloody discharges it is popularly termed "bloody flux."

*Causes*—Fifty years ago it was supposed by some eminent physicians that this disease was due to a specific poison that found lodgment in the bowels; and

this opinion finds confirmation with the bacteriologists of to-day. The prevalence of dysentery in autumn, in cold, moist weather following a heated term, or in a period of hot weather that succeeds a spell of very damp, rainy weather, goes far to establish the idea that it is one of the zymotic forms, and like cholera, scarlatina, measles, etc., its development is largely dependent upon constitutional condition. Exposure to cold and wet, particularly when one is fatigued, insufficient and unwholesome food, foul drinking water, breathing impure air, a constipated state of the bowels, rich, high-

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seasoned food and the use of intoxicating liquors, are among the more readily designated causes immediately productive of an attack. The most frequent exciting cause is dietetic abuse ; “ a consistent vegetarian,” Dr. Shew maintains, “ never gets dysentery.” And my own observation of those who are careful about the selection of their food and partake very sparingly, or not at all, of “ butcher’s meat,” leads me to believe that Dr. Shew is well-supported by the facts.

Dysentery has two forms, the *acute* and *chronic*, which differ mainly in degree.

*Symptoms*—Preceding the development of an attack in the *acute* form there has been more or less trouble with the stomach and bowels, indicated by loss of appetite, nausea, flatulence, vomiting, etc. The first decided symptom is a diarrhea accompanied, it may be, with chills, and usually with severe griping pains, straining at stool, and a burning sensation in the rectum. As commonly described there are flashes of heat and cold ; the pulse is quick or perhaps but little affected ; the stools at first may be copious and feculent, containing bits of hardened fæces, then becoming scanty and consisting mainly of mucous excretions and substance tinged with blood ; a dull pain is felt in the abdomen, that finds relief after each evacuation ; the tongue is furred, and there is much thirst.

With the advancement of the disease the calls to stool become more frequent and distressing ; the pulse quickens, the thirst is more urgent, the urine high-colored and passed in small quantities with pain and difficulty ; the skin is hot and dry—it may be hot only over the abdomen while the extremities are cold,—or there may be a rather free perspiration. With the straining the rectum may become prolapsed, and add a severe complication. Then the tongue may assume a dry, glazed state, or be covered with a dry brown fur ; the abdomen swell and be very tender, the evacua-

tions pass in bed ; a clammy, cold perspiration appear with cold extremities, hic-cough and delirium. Symptoms of the character last described have the gravest significance, and usually precede death ; but when at an earlier stage of the malady, or it may be at any stage, the griping pains and straining at the stool diminish, and the evacuations are less frequent and of a better character, and the fever abates and respiration and pulse show improvement, there is good reason for thinking the patient out of danger, and if advantage be taken of the change to sustain the favorable symptoms by proper hygienic applications, a relapse would be rare.

*Treatment*—Dysentery, in its milder forms, is easily managed. Rest, a sitz-bath in tepid or cool water, an occasional enema of tepid water, little food and that of the blandest sort, at the same time nutritious—animal sorts being altogether avoided. In the severe forms the plan of treatment is simple, the chief object being to keep the temperature down to the normal standard, and thus prevent the development of the enteric poison. Enveloping the abdomen in wet cloths which are to be changed as often as they become dry, will almost always regulate the temperature of the surface.

In some bad cases the extremities will incline to be cold, while the head and abdomen are very hot. The rule then indicated is to apply hot cloths, bricks, bottles, or sand-bags to the extremities, and cold, wet clothes to the head and abdomen.

The painful tenesmus or bearing down sensation in the lower bowel is relieved best by cold applications. Our old-school brethren advise cold water and ice, but I think nothing is better for the purpose than the cold hip-bath. “ Make thorough work in cooling the bowels, and then the pain will cease,” a celebrated hygienist says, but we would advise much care in this treatment lest the cooling be carried too far by the powerful means applied. It is advisable, espe-



cially in giving this treatment to feeble children, to have the feet in warm water at the same time. After relief has been obtained in this way a wet cloth folded may be bound to the anus (the external opening of the rectum) to relieve the soreness of that part.

In the outset of the attack a thorough enema of tepid water is a most valuable process for relieving the intestines of irritating matter, and counteracting the zymotic conditions. Later on, when the disease has become well-established, such treatment is likely to be difficult of application because of the congested and painful state of the rectum. At this time it seems to me that the astringent, corrosive effect of such injections as lead-acetate, zinc-chloride, etc., as advised by some, can scarcely be considered in keeping with the claims of *rational* medicine. Pope's mixture, ergot, carbolic acid, etc., may possess certain antiseptic and stimulant properties, but in the stages of extreme weakness that such powerful substances are administered I am doubtful of their efficacy as compared with the mild and soothing influence of hygienic applications.

Let the patient drink as much pure, soft water as he pleases ; in some cases, hot water may be more agreeable than cold, and fresh milk sipped at a temperature of about 120° may be found soothing to the stomach, as well as nutritious. The diet should in all cases be free from irritating and heating elements. Thin, bland soups of rice, oatmeal, barley, and wheat, with a little stewed fruit, such as mellow apples, pears or grapes, the soft part being taken only. I have found in cases of children whose stomachs were very irritable that a thin tea of Gum Arabic could be tolerated, and was sufficient to sustain them until the bowels had recovered from the inflammatory stage.

In dysentery, poisonous germs are rapidly propagated in the sick room, it is therefore very important that the room of the patient be well-aired, and the discharges be removed as quickly as possible. The clothing and bedding of the patient should be changed often, and either washed or well-aired out of doors. And when he is able to go about without discomfort moderate exercise in the open air should be encouraged.

H. S. D.

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## POPULAR FALLACIES.

### REGARDING THE ACTION OF ALCOHOLIC LIQUORS.

THE general opinion of people in regard to the action of alcoholic liquors is surprisingly erroneous. In the popular estimation alcoholic liquors are stimulating and strengthening. This opinion is held by even a large part of the medical profession. In cases of great prostration and weakness it is an everyday occurrence to prescribe whiskey or brandy to be given freely ; and many believe that numerous lives are saved by the use of such means. Yet there are good reasons for believing that most of those cases recovered in spite of the alcoholic liquors, and not in consequence of taking them. In times past

it was not strange that erroneous opinions were entertained in regard to the action of alcohol upon the human system. Its effects were so deceptive as to deceive the best of people. But in these days, after all the experimental researches and scientific investigations which the action of alcohol has been subjected to, there is no longer any excuse for being deceived by the arch deceiver, King Alcohol.

### THE FOOD FALLACY.

One of the popular fallacies in regard to alcoholic liquors has been, and is now, that they act as food in the system.



Liebig, the great chemist, developed the theory that all alimentary substances are capable of being arranged in two classes, the nitrogenous and carbonaceous; and the idea was adopted that the nitrogenous were appropriated to the nourishment of the tissues, while the carbonaceous united with oxygen by a species of combustion resulting in the development of animal heat and carbonic acid gas, and hence were familiarly styled respiratory food.

Alcohol being one of the purest of the carbonaceous class, and especially rich in carbon and hydrogen, was at once placed at the head of the list of respiratory foods, and of supporters of animal heat. When taken into the system it was supposed to unite rapidly with the oxygen received through the lungs, evolving heat and producing carbonic acid gas and water. Its supposed heating and stimulating effects were thus explained. This explanation of its action, although unsupported by a single experimental fact, was for a time universally accepted. It was not long, however, before experimenters began to apply their tests to this theory. Dr. Prout, of London, ascertained by experiment, that the presence of alcohol in the human body directly diminished the amount of carbonic acid gas exhaled from the lungs, consequently disproving the idea that alcohol was oxydized in the system. Dr. Percy and others found that alcohol taken in a dilute form into the stomach was taken up without change of composition and carried with the blood into all the organs and structures of the body and that its presence could be easily detected by proper chemical tests. It is now conceded by all that alcohol is eliminated from the system unchanged by the skin, lungs and kidneys, and the fact that a substance is thus eliminated unchanged is generally considered sufficient proof that it does not serve as food. But it has been found that not quite all of the alcohol taken can be recovered from these channels of

elimination, and consequently it has been claimed that the portion retained is used as food and serves a useful purpose in the system. Dr. Anstie concluded that an average-sized adult in ordinary health was capable of retaining about one and a half ounces or three tablespoonfuls of pure alcohol in the twenty-four hours, but that if more than this was taken it reappeared in the evacuations or was eliminated unchanged. For a long time it was claimed that this retained alcohol underwent oxidation and evolved heat. When this was fully demonstrated to be erroneous, it was then assumed that its consumption resulted either directly or indirectly in the evolution of nerve force. But here the test of experiment soon showed that so far as the motor and sensory nerve and muscular functions are concerned, both were diminished in direct ratio to the quantity of alcohol taken. The presence of alcohol in the blood slightly increases the frequency of the action of the heart but diminishes its force, giving it characters closely resembling the pulse of typhoid fever. The heart, under the influence of alcohol, loses in force in direct proportion to its increase of frequency until by increasing the proportion of alcohol the heart finally stops, paralyzed. This effect was demonstrated by the experiments of Prof. Martin, of the Johns Hopkins University of Maryland, on the effects of different proportions of alcohol on the action of the heart of the dog, and by Drs. Sidney Ringer and Harrington Simsbury to determine the relative strength of the different alcohols as indicated by their influence on the action of the heart of the frog. These latter experimenters, in their report on the action of alcohol, declare "that by their direct action on the cardiac tissue these drugs are clearly *paralyzant*, and that this appears to be the case from the outset, *no stage of increased force of contraction* preceding."

The claim that alcohol acts as food or increases either the force of the heart or



nervous force, must be given up as untenable. As to what becomes of the small portion of alcohol retained by the system, it is evident that it remains to "pickle" the tissues, so to speak, restraining the natural changes, promote health and cause degeneration of organs and tissues. It can be detected as alcohol in all the tissues after it has ceased to be excreted from the system. It remains just to poison the tissues without adding force, heat, strength, or anything desirable.

#### STIMULATING AND STRENGTHENING FALLACY.

The fallacy that alcohol strengthens and stimulates is one of the hardest of all to die. It has been proved by experiments that the taking of alcohol does not strengthen the action of the heart, although it quickens it. On the contrary, it weakens the force of the heart in proportion to the increase of the frequency. The presence of alcohol in the blood has the direct effect to weaken the force of the heart. Prof. Martin states as the result of his experiments on the action of the dog's heart that the presence of two and a half parts per thousand of absolute alcohol in the blood, almost invariably diminishes remarkably, within a minute, the work done by the heart. Prof. Martin estimates that two and a half parts per thousand of the blood of an adult man, weighing 150 pounds, to be only about half an ounce, an amount only equal to that contained in an ordinary glass of brandy or whiskey. Consequently to secure the presence of enough alcohol in the blood to decidedly diminish the power of the heart would only require the taking of an ordinary glass of whiskey or brandy. In commenting on these experiments of Prof. Martin, and those of Drs. Ringer and Sinsbury before alluded to, Prof. N. S. Davis, of the Chicago Medical College, says: "These investigations complete the series of demonstrations needed to show the actual effects of alcohol on the cardiac as well as the vaso-motor nerves,

and also on the direct contractibility of the muscular structure, when supplied with blood containing all gradations in the relative proportion of alcohol, leaving no longer a refuge for the idea, popular both in and out of the profession, that alcohol in any dose is capable of increasing, even temporarily, the force or efficiency of the heart's action. It is certain, therefore, that if a small proportion of the alcohol taken in the various fermented and distilled liquids is retained in the living body, or can not be actually reproduced in the eliminations within a limited time, such retained portion is neither used for the evolution of heat, the increase of nerve force, the efficiency of muscular contraction, nor yet for the quickening of muscular movements in the processes of nutrition, disintegration and secretion. Consequently the assumption that if any part of the alcohol taken be retained for a time, at least, it must from necessity be converted into some kind of force or energy, is not sustained by any known facts either of scientific experiment or of chemical experience."

#### WHAT IS THE EFFECT OF ALCOHOL.

But it may be asked, if alcohol really has no stimulating effect, how it is that it has so long been regarded as a stimulant? Does not the man who is weary and exhausted feel stronger and better after he has taken alcohol? The man who is cold feels warmer and the man who is oppressed with heat feels cooler after taking alcohol. It will be found that ether and chloroform when taken in small quantities will relieve the weary and exhausted, make one who feels cold feel warmer and one oppressed with the heat feel cooler. They accomplish this by their anæsthetic effects, simply diminishing the sensibility of the nerves, and lessening the consciousness of these disagreeable feelings. Alcohol does the same thing. In regard to the effects of alcohol Prof. Davis says, that they are simply those of an anæsthetic and or-



ganic sedative. Like ether and chloroform, its presence diminishes the sensibility of the nervous system and brain, thereby rendering the individual less conscious of all outward and exterior impressions. This diminution of sensibility, or anæsthesia, is developed in direct ratio to the quantity of alcohol taken, and may be seen in all stages—from simple exemption from all feeling of fatigue, pain, and idea of weight, exhibited by ease, buoyancy, hilarity, etc., to that of complete unconsciousness, and loss of muscular power. It is this anæsthetic effect of alcohol that has led to all the popular errors and contradictory uses which have proved so destructive to human health and happiness. It has long been one of the noted paradoxes of human action, that the same individual would resort to the same alcoholic drink to warm him in winter, protect him from heat in summer, to strengthen when weak or weary, and to soothe and cheer when afflicted in body or mind. With these facts now before us the explanation of all this is apparent. The alcohol does not relieve the individual from cold by increasing his temperature, nor from heat by cooling him, nor from weakness and exhaustion by nourishing his tissues, nor yet from affliction by increasing nerve power, but simply by diminishing the sensibility of his nerve structures, and thereby lessening his consciousness of impressions, whether from cold or heat, or weariness, or pain. In other words, the presence of alcohol has not in any degree lessened the effects of the evils to which he is exposed, but has diminished his consciousness of their existence, and thereby impaired his judgment concerning the degree of their action upon him. It is the property of alcohol to produce that sense of ease, buoyancy and exhilaration, arising from a moderate diminution of nerve sensibility, that gives it the fascinating and delusive power over the human race which it has wielded so ruinously for centuries gone by."

#### THE MEDICINAL FALLACY.

That alcohol is good medicine is a fallacy very deeply-rooted in the popular as well as the professional mind. All the laws which prohibit the use of alcoholic liquors, as a beverage, are very careful to make provision for the use of it as a medicine, and it requires a large quantity of it to supply medicinal demand. Having already shown that alcohol has no stimulating effect and that it does not strengthen the action of the heart, it is evident that its most common use in medicine, that for stimulating and strengthening the action of the heart, is fallacious. How often do we see a patient, reduced by typhoid fever, taking all the whiskey and brandy that can be got into him! And he generally dies unless he has a constitution strong enough to get well in spite of the whiskey or brandy, and then it is said that the whiskey or brandy saved his life! The failing heart is still further burdened by the alcohol; and there is little doubt that whiskey and brandy have been the means of preventing many from recovering from typhoid fever or other diseases. In that it may be said that alcohol as a medicine has no effect which can not better be attained by the use of other things. Old King Alcohol is an old and unmitigated humbug, and it is time he was dethroned.

H. REYNOLDS, M. D.

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USES OF EGGS IN SICKNESS.—For burns or scalds nothing is more soothing than the white of eggs which may be poured or painted over the wound. It is softer as a varnish for a burn than collodion, and being always at hand can be applied. It is more cooling than the sweet oil and cotton which was formerly supposed to be the best application to allay smarting pain. It is the contact with the air which gives the extreme discomfort experienced from the ordinary accident of this kind, and anything that excludes the air and prevents inflamma-



tion is the thing to be at once applied. The egg is one of the best of aliments in dysentery. Beaten up slightly, and swallowed, it tends, by its emollient qualities, to reduce the inflammation of the stomach and intestines, and by forming a transient coating on these organs, to enable nature to resume her healthful sway over a diseased body. Two, or at most three eggs per day would be all that is required in ordinary cases; and since the egg is a concentrated form of food, the lighter the diet otherwise and the quieter the patient is kept, the better for his recovery.

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“FRUGES CONSUMERE NATI.” \*

I have always loved a vegetable dinner, I  
delight  
In the Cr cy soup or Cond  on the *menu* of  
the night;  
The Potato needs no praises, there is rapture,  
too, I ween,  
On the face of every *gourmet* at the mention  
of the Bean;  
And, like wise Sir Henry Thompson, I can  
feel my heart aglow  
At the thought of all the merits of the pleas-  
ant Haricot.

I am very fond of Cabbage, and the tender  
Spinach begs,  
Though it isn't quite *en regle*, to be served  
up with poached eggs;  
Then the Cauliflower is charming, and the  
Celery when viewed  
Fresh and crisp from out the garden, or arti-  
ficially stewed,  
While surely on one esculent we're all unan-  
imous,  
Is there aught that's more entrancing than  
thy taste—Asparagus!

All must love the lively Lettuce; we have  
reason, too, to bless  
Cruciferae for sending us the piquant Water-  
cress;  
Upon any list of salads let the true Tomato  
stand,  
With the Endive and the Beetroot as sup-  
porters on each hand;

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\* On the opening of a Vegetarian Restaurant.

There the Cucumber awaits us, and we fain  
would keep alive  
Both the Taragon and Chervil and insinuat-  
ing Chive.

There is poetry in Mushrooms, and the Len-  
til, too, can please,  
And a thrill goes through my midriff at the  
thought of early Peas;  
I am grateful to the Turnip and the Parsnip  
looking pale;  
There's the Salsify seductive and the deli-  
cate Seakale;  
But the bard shrinks back from one task,  
for no mortal ever can  
Do full justice to the comfort that the Onion  
is to man.

Then we hasten to the Griffin, for a little  
way beyond  
Are the Vegetarian dining-rooms of Messrs.  
Spiers and Pond;  
And the Doctors, too, are with us, men of  
note in London town,  
Risdon Bennett, Milner Fothergill, and also  
Crichton-Browne,  
They have told us very plainly that of health  
we should be winners,  
If we ate less meat, indulging in more vege-  
table dinners.

*Punch.*

SMOKING AND HEART DISEASE.

In a report by Dr. Frantzel, of Berlin, on immoderate smoking and its effects upon the heart, it is stated that the latter show themselves chiefly by rapid, irregular palpitation of the heart, disturbances in the region of the heart, short breath, languor, sleeplessness, etc. Dr. Frantzel says that if the causes of these complaints are inquired into, it is generally found that the patients are great smokers. They may not smoke cigars rich in nicotine, but full flavored cigars imported from the Havanas. Smoking, as a rule, agrees with persons for many years, perhaps for twenty years and longer, although by degrees cigars of a finer flavor are chosen. But all at once, without any assignable cause troubles are experienced with the heart, which rapidly increase, and compel the



sufferer to call in the help of the medical man.

The age at which disturbances of the heart becomes pronounced varies much. It is but rare that patients are under thirty years of age, they are mostly between forty and sixty years old. Persons who are able to smoke full-flavored Havanas continue to do so up to their death. If we look around among the better classes of society, who, it is well known are the principal consumers of such cigars, it is astonishing to find how many persons with advancing years discontinue smoking. As a rule, affections of the heart have caused them to abjure the weed. In such cases they have found the best cure without consulting the medical man. If he makes up his mind to discontinue smoking at once, the com-

plaint frequently ceases at once; in other instances it takes some time before the action of the heart is restored to its normal state. In such cases, besides discontinuing smoking, relief must be sought also by regulating the diet, taking only easily digestible food, abjuring coffee, as well as by short walks, residence among mountains of moderate elevation, and suitable interior treatment. By taking this course, all symptoms disappear in the course of a year, and do not reappear if the patient does not recommence smoking. In a third category of cases the more acute disturbances leave the patient, he feels well and hearty, but an irregularity of the heart, more or less pronounced, is left behind, from which he may never recover.

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#### KEEPING THE FEET AND LEGS WARM.

MANY people pile on fold upon fold of different garments over the hips and lower part of the body, while the feet and legs receive very little more protection in cold weather than in mild and warm weather. Girls frequently suffer exceedingly during cold weather for lack of proper clothing on the ankles and lower portion of the legs, while the lower part of the body is literally made uncomfortable with unnecessary clothing. Men (especially men of declining years) and boys neglect to protect the legs in cold weather as much as those parts should be protected for health and comfort. If one has an abundance of vitality it is not necessary to be particular about protecting the limbs in cold weather, but persons of delicate organization had better employ a little more external protection than would seem desirable, in order to aid and help a feeble vitality. When a steam engine or other machine does not operate *perfectly* in every part, the careful engineer will always help the part that does not work or play its part with ease and efficiency.

For many years past I have found that in cold weather it is far better for my health and comfort, in every respect, to clothe the legs according to the requirements for warmth than to go shivering with the cold, and then suffer from lameness and rheumatism. Consequently, when the mercury falls to zero, I put on two pairs of stockings, and overshoes. Then, to keep the legs warm, instead of putting on two pairs of trousers I have a pair of the *legs* of old ones neatly fitted to the interior of those to be worn; and they are kept up in the desired place by several buttons sewed to the inner side of the trousers, and buttonholes are made in the extra legs to fit the buttons. By this arrangement one can dispose of one or two pairs of legs of old trousers to a very satisfactory advantage. Most men dislike to be bundled up uncomfortably about the lower part of the body. So long as the feet and legs (of man or woman) are cold or chilly, there can be but little comfort. No person can sleep well so long as the feet and legs are cold. I have learned that it is far better *for*



me to help a feeble vitality a little, than to require more of vital action than can ever be realized by way of maintaining a comfortable degree of warmth. Consequently, on some cold nights, when it seems almost impossible to keep warm, I place a warm soapstone in my bed to help my vital action keep my feet warm.

I am aware that strong and robust persons will ridicule this practice. Yet, long experience assures me that, if I want to be well and comfortable during the day, and if I wish to have refreshing sleep and quiet rest, I must not try to sleep with cold feet and chilly legs. Sometimes, when my feet feel so uncomfortable that I can not sleep, I rise and put on a pair of clean, woolen socks. I never sleep in any of the garments worn during the day. When a man removes his woolen undershirt and woolen drawers, and dons a cold, muslin night robe, he needs an unusual amount of vitality to keep comfortably warm. My sleeping garments are made of good, heavy wool flannel, precisely like a shirt of large size, having a wide gore on each side, at the bottom. When I stand erect, my night robe touches the floor. Such garments are inexpressibly luxurious for comfort, in cold weather. For warm weather I have sleeping robes made of cotton flannel, all long enough to touch the floor. With such long garments, the feet and legs, when asleep, will be kept comfortably warm.

If your artist should engrave my picture in my night robe, you could show the readers of the JOURNAL a beautiful representation of a living, breathing and somnambulating spook.

SERENO E. TODD.

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CAUSES OF UNREST AND NOCTURNAL VISIONS.—Wundt regards most dream representations as really representations, since they emanate from sensorial impressions which, though weak, continue during sleep. An inconvenient position during sleep causes the representation of painful work, perilous ascent of a

mountain, etc. A slight intercostal pain becomes the point of an enemy's dagger or the bite of an enraged dog.

Difficulty in respiration is fearful agony caused by nightmare, the nightmare seeming to be a weight rolled upon the chest or a horrible monster which threatens to stifle the sleeper. An involuntary extension of the foot is a fall from the dizzy height of a tower.

Flying is suggested by the rhythmic movements of respiration. Further, "those subjective visual and auditory sensations which are represented in a waking state as a luminous chaos of an obscure visual field, by humming and roaring in the ears, and especially subjective retinal sensations, have an essential role," according to Wundt. "There are shown to us innumerable birds, butterflies, fish, multicolored pears, flowers, etc. But if there be some cutaneous irritation, these visions are usually changed into caterpillars or beetles, crawling over the skin of the sleeper."

The sleeper sometimes dreams of his appearing on the street or in society only half-dressed; the innocent cause is found in some of the bedclothes having fallen off. An inconvenient position of the sleeper, a slight hindrance to respiration, or interference with the action of the heart may be the cause of dreams where one seeks an object without being able to find it, or has forgotten something in starting on a journey. The movements of respiration may suggest to the sleeper, as previously mentioned, flying, but this flight may be objective, and instead of himself flying he sees an angel descending from the heavens or a luminous chaos where birds are swiftly moving.

The representation of dreams having sensorial origin may have mingled with them those which arise solely from the reproduction of past memories. Parents and friends cut off in the flower of life ordinarily appear in dreams, because of the profound impression which their death or burial has made, "hence the general opinion that the dead continue during the night their intercourse with the living." This view of dreaming is rational, and explanatory of most of the phenomena that we are conscious of, while it may lead to a better understanding of those visions to the asleep and half-awake that are so extraordinary as to appear at present unaccountable except by imputing supernatural causes to them.



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NOTES IN SCIENCE AND INDUSTRY.

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**Destruction by Nitro-glycerine**

**Explosions.**—An “old oil operator” in the Bradford oil region rehearses in the *New York Times* some facts as to glycerine explosions which are certainly curious: “Attending the frightful deaths that so frequently follow the handling of nitro-glycerine in the oil regions, there is one feature the mysterious nature of which is startling. It has puzzled scientific observation and study, and I do not believe to-day that any satisfactory explanation can be given of it. This singular feature is the almost complete annihilation of matter, especially of the human body, which in a majority of cases results from a fatal explosion of this compound. I have noticed that in many instances. I had a teamster in our employ once, named Henry France. Like all men of his kind in the oil-country, there was nothing either above, below, or on the earth that he feared. He was in the habit of carting nitro-glycerine to any well where I wanted to use it, and he and his partner Warren Jack actually got so reckless in handling the deadly stuff that no other help I had would remain at work when they knew France and Jack were coming in with a load of glycerine. These two men were so callous to fear that they used to unload the stuff as they would a load of bricks, France standing in the wagon and throwing a can to Jack, who stood some feet away, and Jack catching it and placing it on the ground in time to catch the next one his companion tossed him.

“As it takes a man with a good set of nerves even to ride in a wagon when he knows there is nitro-glycerine under the seat, this manner of handling a compound that the slightest jar frequently explodes will give an idea of the sort of nerves these two men had. One day in 1880 France was coming in with a load of glycerine, and when he was within a quarter of a mile of the well we heard an explosion. No one ever knew how it happened, but it was one of the most complete cases of nitro-glycerine annihilation I ever saw. We found the usual cellar that a few cans of glycerine

always digs in the ground when it goes off, and the usual area of timber felled. Over 300 feet off in the woods, to the right of the road, we picked up a wagon tire. We found the tail of one horse and the hoof of another. In another part of the woods a man's knee was picked up, and that was all we ever found, except Henry France's greasy cap lying by the side of a stump and his silver watch hanging on a tree.

“George Doran was blown to pieces by a nitro-glycerine explosion at Red Rock a few years ago. He was a man that weighed 200 pounds. All that the most thorough search ever recovered of that 200 pounds of flesh and bone was a part of one of the poor man's feet—less than one pound. Charles Berridge, a well-known oil man, was blown up by nitro-glycerine one winter in Allegheny County. The ground was covered with newly fallen snow. On either side was a high and abrupt hill only a few rods apart. Berridge was a very tall man, and his weight was 180 pounds. The remains of the poor fellow were searched for carefully, but less than 15 pounds of them could be found. The most curious part of the case, and one showing how completely annihilation accompanies an explosion of nitro-glycerine, was this: The greatest force of the explosive is always expended upward. However infinitesimal the atoms to which Berridge's body might have been reduced by this explosion, in falling back upon that spotless snow some trace of them must have been seen, but the snow remained as spotless as before.”

**A New Fuel Product.**—The *Journal des Mines* is authority for the statement that lignite, which has up to this time been little appreciated, will soon become a serious competitor against coal.

Lignite is well known to be merely coal which has not yet been completely formed, and is found in enormous masses of vegetable matter, in the midst of which entire trees may be found. In Italy there have recently been found large beds of lignite which are almost upon the surface and can



be easily exploited, and whose use has not yet been very extensive on account of their great distance from all means of communication. Nevertheless, there are some Italian railroads, especially those in Tuscany, which are to-day using lignite as a fuel. It is further stated that the Italian government, which possesses no coal mines within its own territory, and which in case of war would be entirely deprived of all means of operating its railroads, since coal is one of the first things which is declared contraband of war, is going to compel all the Italian railroad companies to adapt the fire-box of their locomotives so that they can burn either coal or lignite, at pleasure. This step will give considerable value to lignite mines, which are abundant in Italy, particularly those situated in the center of the peninsulas, half-way between the Mediterranean and Adriatic.

**Greatest Discoveries in Physiology.**—Among the greatest discoveries in Physiology, common opinion would mention as the foremost, the action of the heart in circulating the blood—a discovery not originated but consummated by Harvey; and yet the discovery is of so simple and obvious a nature that we wonder now not so much at the ability manifested in the discovery, as at the stupidity which permitted it to remain so long unknown, and even to be denied and ridiculed when published. Harvey's work on the generation of animals entitled him to a higher rank as a pioneer in science than his theory of the circulation.

A far greater discovery was that of Dr. Gall, which embraced not only the anatomy but the functions of the brain as a mental organ—a discovery twenty times as great, whether we consider the superior importance of the brain or the greater investigating genius necessary to the discovery. It easily ranks at the head of the physiological discoveries of the past centuries.

Next comes the discovery of the motor and sensory roots of the spinal nerves by Majendie and Bell, which did not, as commonly supposed, include the motor and sensory of the spinal cord. This was a small discovery compared to Gall's but not inferior to Harvey's discovery of the cardiac function.

A fourth discovery, perhaps of equal rank, was the discovery by Harvey's contemporary, Aselli, of the lacteals that absorb the chyle.

A fifth discovery of discoveries of importance was that of the corpuscles of the blood and the Malpighian bodies of the kidneys by Malpighii.

A sixth discovery considered more important and occupying a larger space in medical literature is the cell doctrine of Schwann, a doctrine still under discussion and by no means a finality.

Anatomical science has few first-class discoveries. Anatomy has been a growth of observation and description—not discovery. Vesalius and Eustachius may be considered the fathers of modern anatomy, and the name of the latter is immortalized by the Eustachian tube, which he first recognized and described. But the Fallopian tubes named after Fallopius were not his discovery. They had been described long before by Herophilus and others. Eustachius was nearly two centuries ahead of his age in anatomy, and should be gratefully remembered as a struggling scientist. His valuable anatomical works, which he was too poor to publish, were published one hundred and forty years after his death by Lancisi.—J. R. B.—*Banner of Light*.

**“Full-Blood” and “Thoroughbred.”**—In popular language the terms are synonymous. When used in reference to horses, there is a well-defined difference between them, which it would argue ignorance to neglect. Some writers seek to establish a difference also when they are used in relation to sheep, and in this way: A full-blood is one in whose veins there is no admixture or strain of any other blood but the Spanish, while a thoroughbred is all that and something more. A sheep may be a full-blood (pure-blood would be a better term), and yet be so deficient in form or fleece as to be unfit for a breeder. But a thoroughbred is the outcome of a long line of ancestors, which, beginning with pure blood, have been so consummately molded by man to a special purpose that this last and finished product is, so to speak, incapable of begetting or bearing a progeny different from itself. While these ought to be,



and with accurate men are, the definitions of the two terms, in popular usage they are not, and are constantly misapplied.

All lions, all tigers, all animals in a state of nature are full-bloods, pure-bloods, average types of their respective races; but not all of them are thoroughbreds—that is, not all of them are so even in all their qualities and so sound in their constitutions as to be able to produce progeny up to the level of the race-standard. They are weeded out by natural selection; they are ill-formed, or weak, or lacking in cunning, and they perish in the struggle of life, leaving the best individuals behind to perpetuate the race. Under a state of domestication in which man seeks to preserve all the individuals, good and poor, he must himself conduct this selection of his breeder.—*American Agriculturist*..

### “The Stamp of Fruitfulness.”

—A correspondent of the *Tribune* writes: “In a block of nursery trees there are some unusually vigorous, with a strong, upright stem and thick leading shoot, with few side branches having a few short, thorny, horizontal shoots. The vigor and varnished appearance of these trees cause them to be the first selected, and occasionally a purchaser secures all of this sort and is pleased accordingly, not realizing that the selection is the worst in all respects. Such a tree invariably has a root like a carrot, with few if any horizontal roots. The future efforts of such a tree, if it survives, is to form a new leader shoot and a new taproot, it being a near descendant of the wild type. Our improved fruits are the result of long and favored cultivation, and the indication of improvement is manifest in a finer organization, just as we choose a Jersey instead of a cow of the bison type. So, from thirty years’ experience in orchard-growing, I have found that a tree with many side-branches, inclining somewhat to droop, and slender, feathery offshoots with a moderate strength of body and but slight inclination to upright growth, is the tree that can be relied upon for profit; it has the stamp of fruitfulness, and will not disappoint. This class of trees can be transplanted safely, having many fine spreading roots, the form and position of the part be-

low ground always corresponding closely with that above.”

### Treatment of Kerosene Lamps.

—To insure good light, the burners of petroleum lamps should be kept bright. If they are allowed to become dull, the light is uncertain, and, owing to the absorption of heat by the darkened metal, smoke is the result. Once a month place the burners in a pan, covering them with cold water, to each quart of which a tablespoonful of washing soda should be added, and also a little soap. Boil slowly for one or two hours, and at the end of this time pour off the blackened water. Then pour enough boiling water into the pan to cover the burners, adding soap and soda in the same proportions as before. After boiling again a few minutes, pour off the water, rinse the burners with clear hot water, and rub dry with a soft cloth. The burners must be perfectly dry before the wicks are introduced. Should the wicks become clogged with the particles of dust floating in the oil, and new ones not be desired, they may be boiled in vinegar and water, dried thoroughly, and put back in the burners. If wicks have done duty all winter, they should be replaced by new ones in the spring. Nickel burners may be boiled as well as brass ones. Time spent in the care of lamps is never wasted. The paper roses, guelder roses, and chrysanthemums, so popular for decorative purposes, are admirable for placing in the lamp chimneys to keep out the dust during the day, and the wicks should be turned a little below the rim of the burner, to prevent exudation of the oil.

**A New Giant**—The tallest man of modern times has appeared at the London Pavilion. He is an Austrian named Winkelmeier, and his height is 8 feet 9 inches, one foot more than that of Chang, the Chinese giant. Winkelmeier was born at Freidburg, near Salsburg, upper Austria, in 1865. He is the youngest of a family of five children, none of whom are of abnormal stature. His fingers span two octaves on a piano, and the stretch of his arms is enormous. He showed no extraordinary growth up to the age of fourteen, but since then he has been growing rapidly.





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H. S. DRAYTON, A.M., M.D., *Editor.*

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### STEWART ON THE TEMPERAMENTS.

NOT long since we had occasion to examine a volume of lectures prepared by an eminent English surgeon, and noted with some surprise that in his study of constitutional tendencies to disease he mentioned the important subject of temperament with hesitation, leading us to infer that he regarded it as an indeterminate field; in fact, saying practically that the ordinary physician would not find much real advantage in the attempt to explore it. We suspected from the language used that the writer had used rather old spectacles in his examination of it, and that was one reason for his finding so little of value.

Now a fresh book comes under our eyes, gracefully arranged and handsomely printed, with the attractive title of "Our Temperaments; their study and their teaching." It bears the name of an Edinburgh surgeon, whose standing is indicated by the letters F. R. C. S. on the title page. He has certainly made a pleasant book, and gathered within its covers a considerable amount of data bearing upon types and relations

of temperament; but we find the disposition to view the whole matter through old spectacles as conspicuous as in the book to which allusion was made above. He takes the very old classification—Sanguine, Bilious, Nervous, Lymphatic—as the basis of his observations, and labors to create an orderly series of types and conditions of men with it, notwithstanding the sanguine assurance in the Preface that "The physical characteristics of the temperaments, on the contrary, are definite, few, and readily observed." If there be such definiteness and fewness of the temperamental characteristics, how could he describe such a man as President Lincoln as "lymphatic," on page 68, when just before, on page 67, he quotes Dr. Pritchard for the physiognomy of the lymphatic, thus: "The phlegmatic (lymphatic) temperament is distinguished by light, sandy or white hair, light grey eyes, a pallid, unhealthy whiteness of skin, which is almost bereft of hair, small blood-vessels, a weak, slow pulse, cold surface, general defect of energy in the functions both of animal and physical life." It seems to us that the author of "Our Temperaments" could not have ever seen a portrait of Mr. Lincoln, otherwise he would not have made so extraordinary a mistake as to place that phenomenally gaunt, dark-haired, dark-visaged and energetic man among his illustrations of the "lymphatic."

Long ago American phrenologists took the ground that the classification of the temperaments into Sanguine, Bilious, Nervous and Lymphatic was imperfect, because in its assumed relations to certain systems of organs it did not fully represent the whole constitu-



tion of physical man ; and further, they claimed that this nomenclature was misleading from a physiological point of view ; that such terms as "bilious," "nervous," and "lymphatic," were rather representative of abnormal or morbid conditions than of healthy and normal. The quoted analysis of the "lymphatic" certainly does not fit a phase of health at all.

The difficulty found in differentiating types and sub-types by experienced medics was largely traceable to this fact, which we think becomes apparent to the reflective observer after a little study. And we are surprised that the Scottish author does not mark it. The work, however, as a whole, shows far more of reading than of original observation. And as a compilation of what many Continental and British writers of past and present time have incidentally, or of set purpose, said concerning temperament, it has value. A few elements of illustration by word and picture are introduced at the end of the book ; those by word are for the most part the brief and unanalytical descriptions of the biographical writer ; while the pictures have been derived from old models of painting, and are more becoming an album of art than a sober treatise of a scientific character, wherein it is to be expected that a sharp application of the writer's principles will be made, and the reader obtain new and practical information concerning the subject matter of the treatise. There is merit in the endeavor to use old tools and render them effective, but it were better, we think, that one avail himself of the latest and best instruments and prove himself a workman in the forefront of modern psychology.

### A LEAFLET FROM PLATO.

THE philosophy of Plato has always impressed strongly the philosophical doctrines, of the Christian era. Even to-day there exist schools of thought in which the teachings of this great disciple of Socrates are openly discussed and accepted. In religion his opinions have exercised great influence because of their profound regard for truth and justice, and probably also because of the tendency to triple division that he shows in every department of discussion. In the study of being, he was as much a realist as Aristotle, yet his point of observation is for the most part a moral one, whence his naturally strong, religious sentiments led him to look upward toward the source of all things and discourse of virtue, truth, the beautiful and good. Plato grasped the idea of man's mental constitution with a firmer hand than any other of the ancients—this is another reason for his influence upon the thought of later time. Three grand elements enter into this constitution, reason, which he regards as divine and immortal, a sensuous principle, or what is called appetite, and passion or feeling. Under the word *soul*, he includes the power that manifests itself through will, reflection, thinking, judgment, desire, and aversion, hope, fear, love and other mental dispositions. "As the soul is united to the body, so both exert on each other a reciprocal influence ; the soul commands the body, but, on the other hand is commanded by the body. All the states, however, of the one and of the other resolve themselves into a single consciousness, and they therefore, all bear reference to one and the same subject."



In his discussion of reason, Plato refers not only the intellect, but also the moral sentiments to it as a general class, an error, as we know to-day, but which was accepted by metaphysicians and employed in their works as late as our generation. Of the anatomical connection of mind he was ignorant, although like Pythagoras he believed that the thinking principle resided in the head, while the feelings and appetites lay in the body.

In so many particulars the analyses of the action or function of certain powers or faculties of the *soul* ventured by Plato approximate those of phrenologists, that it is not presumptuous for us to say that Dr. Gall, aided by the light of his physiological discoveries, reduced to clear and well-founded propositions the views of the great Greek thinker. Von Struve, of Heidelberg, said in an article published forty years ago, that an examination of Plato's philosophy shows that he had discovered how intimate was the relation of the mind to the body, since he enumerates among the animal feelings "A propensity for nourishing and sustaining the body (Alimentiveness), and the instinct of propagation (Amativeness); and among the former, those which have relation to strength of mind, and the desire of honor and precedence (Self-esteem and love of Approbation)." Quoting the translated words of the philosopher we have this admirable homily, on the characteristic influence of the higher sentiments, and animal propensities: "Those men who pursue only sensual pleasure and wealth continue upon the lowest level of humanity. Their regards, like those of the brute, are fas-

tened upon the earth; eating and drinking and sexual pleasure fill up their whole lives. These men do not understand the dignity of their immortal souls and never enjoy pure and enduring pleasure. Their agreeable feelings are only shadows. Their pleasures are mixed with pains. The same is the case with those men, whose chief endeavors are limited to the satisfaction of their ambition, their love of power, and desire of revenge. It is only where reason is known in all her dignity, where a sincere interest in justice and truth prevails, that a true, pure and enduring enjoyment is to be found; a complete harmony of all sensations and feelings; a union of all the powers of the soul. . . .

"The soul and the body must both be used according to their due relations; all the powers of the soul must be brought into due proportion and under subjection to reason, and they must be regulated and strengthened by activity. The desires and emotions should suffer neither through want of gratification nor through satiety, in order that they may not, in either case, disquiet reason and disturb its functions in acquiring knowledge of things. . . . The imperfection of the soul consists in the want of those proportions and subordinations which nature has appointed. The means toward improving it are chiefly self-knowledge, training, increase of information and improvement of the sentiments. Ignorance will be removed through instruction, and want of self-knowledge by the means of discipline."

With this trifling exhibit of Plato's doctrine of the mind before us, it is easy to see how strong would be his influence upon the progressive physiolo-



gist and metaphysician, and why Christian thought was colored by his ideas of truth and virtue.

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"CAN'T AFFORD IT."—From a letter recently received we quote the above. The writer says also "I have taken much pleasure in reading the JOURNAL; \* \* \* it is a valuable and useful magazine to anybody." We are sorry for the man or woman whose pecuniary condition is so low that two dollars can not be afforded to secure what has been of value and use for a year or more. Sometimes that condition absolutely occurs, but we must believe it to be exceedingly rare. That which has practical value and use in some way represents money; when availed of, it enables one to do certain things that he would be a loser by letting go; it suggests or points the way to certain economical methods, and may thus save time and expense. A paragraph may contain a hint that will clear away a thick fog of uncertainty and error in which the reader has been wandering for months or years. An article may change entirely the course of a life, and give hope and success where failure and despondency had been the rule. Far

off in a prairie region a young woman was living who rarely saw a specimen of the current medium of exchange. She was poor, very poor, in this world's goods, but rich, very rich in soul. She was a subscriber to the PHRENOLOGICAL JOURNAL, and had to go or send to a post-office that was several miles distance to get the monthly numbers. She failed one year to save from the scanty earnings of her labor the little sum required to renew her subscription. Did she write to the publisher that she "could not afford to take it?" Scarcely. A letter came one day written in an earnest hand, and with words that brought tears to the eyes of the reader. She "*could not do without the Journal,*" it was "more precious than gold," She must have it, and the money enclosed to pay the next year's subscription had been obtained *by the sale of her beautiful hair*. If ever the editor of this magazine harbored the selfish wish that he were a millionaire it was then, that he might give the JOURNAL to a hundred thousand of the people of the land, who in their poor and obscure places, were working patiently along with little to cheer them or encourage the hope of a better condition.

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## Our Mentorial Bureau.

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### To Our Correspondents.

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QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories.



*A two-column article is read by four times as many people as one of double that length.*

6. *Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.*

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

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WOMAN AND MAN INTELLECTUALLY.—Mrs. A. S.—This subject has occupied a large space in the discussions of the day. Mill, Spencer, Lewes, Huxley and others have made it a matter of scientific inquiry. In Broca's Anthropological Review (French), opinions have been published that are based upon physiological reasons. We do not regard women, as a class, equal to men in power of intellect. To say so would be to deny the evidences of science, art and industry, and to ignore the effects of long ages of subjection. Man has had the advantage of being favored by law and custom from the beginning of history. And it is but natural that his organization on the side of intellect and executive talent should be the stronger. But let women have equal rights in all respects with men, we believe that in time, and with the stimulating influences of modern civilization, they will reach man's level. Why not? The author of "The Ways of Women" considers this subject from its various sides, and concludes that woman was appointed to be the companion and helpmate of man, and her endowments properly developed would give her the equality that such an ordinance implies.

GALL AND SPURZHEIM'S WRITINGS.—T. B. T.—Drs. Gall and Spurzheim published their "Memoir" of Doctrine that had been presented to the French Institute, and also the comments on the Notes of the Institute Committee, in 1809. Next a great work was projected of which two volumes were prepared conjointly, and two volumes published by Gall separately. This is "The Anatomy and Physiology of the Nervous System in General, and of the Brain in Particular." The Memoir and the latter work are in French. Later, Gall published alone the

work in six volumes which was translated into English, and still has considerable circulation, and also a critical discussion of the Functions of the Cerebellum. Dr. Spurzheim's list of books on the subjects relating to Phrenology is long; for instance: The Physiognomical System of Drs. Gall and Spurzheim; Outline of the System; A Treatise on Insanity, all of which were first published in England; then, Philosophical Essay on the Moral and Intellectual Nature of Man; Of the Brain in its Anatomical relations—these in French; later came Phrenology in connection with the study of Physiognomy; Phrenology, or the Doctrine of Mental Phenomena; Philosophical Catechism of the Natural Laws of Man; Anatomy of the Brain, with a general View of the Nervous System; Elementary Principles of Education.

You also ask the names of writers against Phrenology, who in their day were prominent. The few that I can mention just now are Lelut and Garnier, Roget, John Gordon, Sir Wm. Hamilton, Sewell, and Mr. Lewes. Prof. Bain's Metaphysical treatise is one of the latest outcomes that show an unfriendly spirit, although he makes certain important concessions.

NEW LOVES.—B. C. V.—There is a great deal of the irrational in the expression that sentimental writers reiterate about love being eternal, and affection once bestowed can never find a parallel later. The organization has to do with this matter in a most marked way. A woman endowed with strong Amativeness and Conjugality, having made choice of the man she would have for a husband, if disappointed after a period of courtship, by his leaving her, would be likely to feel keenly for a time the mortification and grief of such desertion; but in time her desire for the marital relation would assert itself, and with favoring circumstances a new intimacy with some man would develop. A woman organized similarly, whose moral sentiments are influential, if her accepted lover died would be more deeply grieved; her feelings would have the added impress of a spiritual idea that the loved one had gone to heaven and after a time, were she faithful to his love, they would be united in the new life. This thought would be more likely than any other to prevent one from en-

tertaining a new love and its consequence of marriage. On the intellectual side marriage is mainly a matter of individual fitness and expediency, and from such considerations it might be repeated several times.

VELOCITY OF ELECTRICITY.—G. V. M.—The data given in the *PHRENOLOGICAL JOURNAL* relating to the speed of currents in wires used for telegraphic messages, are but approximate estimates. The velocity depends upon the electro-motive force, according to Ohm's well-known law. Where the resistance is the least the speed is greatest. Johnson gives the speed of lightning as 250,000 miles a second, while the rate usually stated for electricity in a free medium is about the same as that of light or 185,000 miles. Electricity like all other forces is subject to conditions of cause and the medium of transmission.

TELEGRAPHY.—A. C.—We think that thirteen is too young to put a boy at such an occupation as telegraph operator. He ought to be well established in the fundamental branches of an English education, and be well developed physically. If he could be taught the art, while pursuing his studies, without confining him indoors too much it would be well enough, but at that age a boy is not sufficiently developed to endure much nervous strain. At sixteen or seventeen he would be old enough to be placed at the instrument as a business.

EXAMINATIONS BY CORRESPONDENCE.—M. E. C.—A printed chart, or the list of the organs with their degrees of development, can not be given in the case of a delineation made from photographic views of the head, because it is necessary that the examiner should make his estimates of the organs severally from the living head. If you will write for the circular known as the "Mirror of the Mind," you will obtain full information on this department of practical Phrenology.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

"The Noble Forehead Fallacy."
—Under the above caption an article is go-

ing the rounds of the press. From it I make the following excerpts, which, viewed in the light of true mental science, are surely astounding:

"It is popularly supposed that the high forehead is essential to a good brain, and intellectual superiority is usually associated with the conception of a 'two-storied brow.' Dr. Wm. H. Mays combats this idea in the *Western Lancet*. He says: 'The size of the forehead depends much on the line of growth of the hair that limits it. A man may have what is called a low forehead; but if the hair could be removed to the height of four or five inches, the same individual would present as fine a specimen of the traditional 'noble forehead' as could be wished, a perfect 'dome of thought.' The truth is, the front part of the brain has very little to do with the intellectual process. It is the posterior lobes of the brain with which the higher faculties of the mind are associated."

Phrenological students will find much in the above for criticism. According to my experience, the writer attempts to handle a subject of which he knows little; and in his closing sentence deals a blow at a science of which he knows less. One might almost be tempted to accuse him of seeking to found another system of investigation, although he assuredly borrows from the disciples of Gall the only really important idea he presents: that certain sections of the brain are devoted to certain mental faculties. No one will oppose the proposition advanced in the first sentence. I believe that phrenologists always, in their investigations, make due allowance for hair growing down the frontal region; and as this part of the cranium is always judged by the relative size of the organs there located, little needs to be said in regard thereto. But to say that the "frontal brain has little to do with the intellectual process," and to assign that function to the posterior lobes is to make an assertion that every lover of true mental science will be found eager and ready to disprove. A striking argument is found in the fact that the frontal brain assumes its greatest development in men. Beginning with the lowest types of animal life and ascending steadily upward, we find at each step a reach forward in the development of frontal lobes, until their largest manifestation, both in brain and the corresponding faculties, is shown in the highest order of civilized beings. One of the best illustrations of this fact is found in Prof. Sizer's descriptions of the "Facial Angle," given, I

believe, in the latter part of his interesting book of personal reminiscences, "Forty Years in Phrenology." This point will be found to be demonstrated in perfect accordance with fact and reason.

The merest tyro in phrenological science, knows that the reasoning powers are assigned to the frontal portion of the brain, and the domestic faculties to the posterior; and years of careful observation have proved the correctness of this classification. Disease or injuries which affect that part of the cerebrum lying beneath the frontal bone always produces like symptoms as regards cerebral disturbance; and the same is necessarily true when the seat of disease or injury is the occipital lobe. Our writers have recorded many authentic cases, and the subject of phrenic pathology has become one which offers great results to the student.

However, the utter fallacy of Dr. Mays' views are readily detected by any careful observer or reader; and to enter into a long and detailed article of refutation would be useless, in the present state of public enlightenment on the subject of brain development. The reply is so simple, and the idea advanced, so palpably false that "he who runs may read."

EDWARD THOMAS TUBBS.

Early Glimpses at Human Nature.—Before the writer was old enough to know there was any such science as Phrenology, his parents took a little girl from one of our large cities to board during the summer. She was only eleven years of age and unusually bright and smart for her age. She knew more about housework, perhaps, than many a young miss just out of her teens; but she had a very high temper, was destructive and vicious when things did not go to suit her; would quarrel the whole day long with her playmates and was very hard to control. She was a puzzle to all around her, yet she had many redeeming qualities. No one could be more obliging, if she wished to be. She was quick to learn and took a great interest in all things she saw around her; was a great observer and wanted to know the whys and wherefores.

For the first time in his life the writer began then to compare the heads of different individuals. He noticed that the head

of this little girl was large and well developed above the ears, and prominent especially in the region of Firmness. On comparing this head with some of his neighbors, who were noted for their Firmness, Combativeness and Destructiveness, he found the same peculiar formation of the craniums. The difference in size of different individual heads was also noticed but he could not at that time have given any explanation of the different sizes of heads and their general outlines. The writer however reasoned, after looking at and studying different heads, that there must be an organ of firmness, or stubbornness as he then called it.

Then again he found individuals that were always grumbling and fretting, whose wives could not do anything right, or where there was generally a wrong motive ascribed to everything done that did not please them; and after comparing these individuals he found that the head was not well developed in the region of Adhesiveness, and Philoprogenitiveness, that the social group was deficient generally (of course he did not know much about the social group then, or any other group, as he was scarcely more than a boy), and he reasoned that want of fullness in the back head was a sign of churlishness and disagreeableness. These signs appeared to me as I grew older to be well founded, and when I became acquainted with Phrenology the matter was thoroughly cleared up, and I found that I had been on the right track and of course I was the more ready to believe that Gall and Spurzheim were right.

E. L. DAVIS, Tracy, Minn.

An Old Disciple.—Gentlemen: My subscription to the PHRENOLOGICAL JOURNAL has expired. I am some distance from the city, but as soon as I can get down will renew my subscription for 1887. Don't fail to send the January number, as we can't afford to do without the JOURNAL. Mrs. F. says we must drop some other papers, but we can not drop the JOURNAL. It is an ever welcome friend and guest, in our household; its teachings have been the foundation of our success. We adopted it as our rule of life, in 1848, when Prof. Fowler came to Chicago (we resided there at that time). Prof. F. stirred that city as it never had been before. He called out very large audiences, and he delivered some twenty lectures with

the most learned and influential of the city, no abatement of interest to the last; that course of lectures was the first we ever heard on Phrenology. We heard them all, and gladly accepted the science, obtained books and charts, and nine years afterward were on the road as a lecturer. That dates an important event in our history.

Yours Fraternally.

Adrian, Mich.

A. W. FLOWERS.

PERSONAL.

EDWARD LIVINGSTON YOUNG, the well-known representative of advanced science, and editor of the *Popular Science Monthly*, died January.

He was sixty-five years old and had spent a busy life. When a child his sight was almost lost, and although he recovered the use of his eyes, they were permanently injured. Much of his study was devoted to chemistry and physics. His "Class Book of Chemistry," published in 1852, enjoyed a wide popularity, as did also his "Hand-book of Household Science," and the "International Science Series," which he planned. At one time, he was professor of chemistry in Antioch College, but during the greater part of his career he was connected with the publishing house of D. Appleton & Co., as their scientific editor.

MARSHALL P. WILDER, the well-known authority in flowers and fruits, died in Dorchester, Mass., December 16th, at the age of 88 years. Although nearly all his life a Boston merchant, Mr. Wilder devoted a great deal of his time to horticultural pursuits, in which he achieved success and enviable distinction. He had been president of the Massachusetts Horticultural Society, and was president of the American Pomological Society from its organization till the time of his death. He organized many societies and assisted in founding many institutions. He was also president of the New England Historic and Genealogical Society. It is not many months ago that Mr. Wilder was in the office of the PHRENOLOGICAL JOURNAL, and appeared as an active, spirited man of sixty years or so, rather than near ninety.

MISS MATILDA JOHNSON has just died in

London, one hundred and sixteen years old. Eighty-nine years ago her intended husband died suddenly and she made a will giving her entire fortune to the Military Hospital and directing that "Love killed her" should be engraved on her tombstone. Evidently a case of the survival of the fittest!

MISS ELAINE GOODALE has entered the list of those rather ambitious women who would attempt to civilize the Indians. She has gone among the Sioux at the lower Brulé agency in Dakota, having prepared herself by a course of study at General Armstrong's School at Hampton.

WISDOM.

"Think truly and thy thought
Shall be a fruitful see."

Activity, and not despondency is the true counterpoise to misfortune.—*Lowell*.

Reformers look small in the eyes of the world, because they are so far in advance.

Economy in our affairs has the same effect upon fortunes that good breeding has on our conversation.

Too much idleness, I have observed, fills up a man's time much more completely, and leaves him less his own master, than any sort of employment whatsoever.—*Burke*.

Tired muscle and weary brain are not so hard to bear as that utter weariness and loathing of life, yet mixed with fear of death, which is the lot of those who have made pleasure their one aim in life.

Every man takes care that his neighbor shall not cheat him. But a day comes when he begins to care that he do not cheat his neighbor. Then all goes well. He has changed his market-cart into a chariot of the sun.

Books are yours,
Within whose silent chambers treasure lies
Preserved from age to age; more precious
far,
Than that accumulated store of gold
And Orient gems which, for a day of need,
The Sultan hides deep in ancestral tombs.
These hoards of truth you can unlock at
will.—*Wordsworth*

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"What's in a name?" a recent traveler was heard to exclaim—"Why, about the hottest country on the globe is Chili."

An elderly minister at a social party where the young people were dancing, being asked if he danced, replied, "No, I am not educated at that end."

"Sam, why am senators like de fishes?" "I don't meddle wid de subjec', Pomp." "W'y, don't you see, nigger—because dey am fond of de-bate."

"When I die," said Mrs Fishwacker, "I want to be buried in the good, old-fashioned style, and not burned to ashes in one of those creameries you hear of."

Willie—"Mamma, you ain't going to give all that puddin' to Tommy, are you?"

Mamma—"No, Willie, dear; it is for you."

Willie—"Oh, what a little bite!"

A contemporary calls attention to an advertisement extolling the virtues of a new sort of infants' feeding bottle, with "directions for using" that wind up as follows: "When the baby has done drinking, it must be unscrewed and laid in a cool place, say under a tap." Poor baby!

"Are you having much practice now?" asked an old doctor of a young beginner. "Yes, sir; a great deal, thank you." "Ah, I am glad to hear it. In what line is your practice particularly?" "Well, sir, particularly in economy."

The *World* says that the woman's bustle must go. The *World* is mistaken. It is the woman that must go. The bustle must follow.—*Germantown Journal*.

We must sadly confess that such is the mode of procedure woman is bent upon.

Mary—Stop your flattery, now, or I shall hold my hands to my ears. John—(wishing to be complimentary)—Ah, your lovely hands are too small.

Customer (in restaurant).—"Waiter, isn't it strange that I should find several flies in my soup?"

Waiter (somewhat amazed).—"It am strange fer a fac', sah, fer dis season ob de yeah."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

A SKETCH OF THE LIFE OF APOLLONIUS, of Tyana, or the First Ten Decades of our Era. By Daniel M. Tredwell; pp. 354; 8vo. Cloth. New York: Frederick Tredwell.

Several lives of this remarkable man have been written at different times, but so far as we know, this is the only one within reach of the general public. Brief notices of him can be found in various encyclopedias and biographical dictionaries, but they merely state who, and not what he was. From the preface, we learn that this sketch—for it is really nothing more—is the outcome of a challenge publicly made by a clergyman for the production of a record of the life, sayings and doings of any personage, who lived 1800 years ago "so well attested and by so many reliable witnesses as is that of our Savior in the account of Matthew."

Mr. Tredwell accepted the challenge, and selected Apollonius, who was born in Tyana, a city of Cappadocia, in the year one of our era, who spent the most of the 95 years of his life in travels, that extend from India to Spain, teaching the doctrine of the Stoics much as he had received them, but in a reformatory spirit, insisting that virtue and true piety are the only foundations of happiness. He was a strict vegetarian, refusing to shed blood for sacrifice to the god, and wore no clothing the making of which involved the killing of animals. For about 50 years he was accompanied on his travels by Darnis, to whose record the world is indebted for much that is known of him. He was not an enthusiast, but a philosopher, of whom Voltaire says history has not re-

proached with an equivocal action. His prayer was, "O ye immortal gods, grant us whatever you shall judge fit and proper to be bestowed and of which we may not be undeserving."

His disciples deified him, claiming for him divine paternity, and that messengers of Apollo sang at his birth; that he wrought many miracles, and in one instance at least raised the dead.

Not the least valuable part of the book is the notes that are numerous and instructive, showing a research and erudition unexpected in an author of whom so little is known—but his interesting book is wanting in one thing, an index.

CHRIST UNVEILED: HIS HEAVENLY AND EARTHLY APPEARING. By Anna J. Johnson, author of "The Healing Voice."

"Faith Healing," "Christian Science," "Healing by Prayer," and whatever else it may be termed, is a procedure that appears to have found a hold in many intelligent minds, and bids fair yet to be a competitor of no mean dimensions with the man of extracts and tinctures. In many of our cities chapels or meeting-rooms are run in the interest of what might be called "gospel" medicine. We know of two or three large churches in this city where large assemblies may be seen two or three times a week, and where the principles of "faith cure" are advocated, and applied to the invalids who offer themselves as subjects for the peculiar treatment. That wonderful cures arise from such treatment we may not deny. Testimony comes from the most respectable quarters that "the prayer of faith" and anointing with oil have healed the sick. No good physician will deny the power of trust or confidence in helping his treatment to produce the effect that is desired. Some authorities even go so far as to say that unless the patient have confidence in the physician and the medicine administered it is useless to prescribe. The mind is greater than the body, and exercises a wonderful power upon it even when diseased or exhausted. But the author of the book under notice tells us that all true light, life and health are the gift of the spirit of God as revealed in Christ, and that men must understand the will of God and His laws, and live in accordance to them. How Christ unveils the high spirit-

ual truths that come from above Mrs. Johnson endeavors to show, and insists that it is the dominance of the animal in people that prevents them from understanding and living in the simple lines of Christian duty. She finds in the signs or constellations of the Zodiac certain representative types that have a close relation to man, and proceeds with a peculiar analysis of each of them that suggests something of the ingenuity of a modern astrologer, although her imagination is stimulated by religious ardor. In several instances we fail to see a logical connection between her predications and the stellar forms; and can not help thinking that in her zeal Mrs. Johnson deems herself warranted in appropriating for her purpose anything in the universe—and why not the stars, so ready a type of spiritual illumination.

PUBLICATIONS RECEIVED.

MAMMA'S STORIES FOR LITTLE PEOPLE, by Laura J. Rittenhouse, are excellent little tales in their way. Being published by the National Temperance Society, they have of course certain lessons to inculcate about the wrongness of drinking things that will intoxicate. Most of the stories are of the good deeds of little fellows, who possess courage and manhood to a good degree in their little heads; but there is little of the unreal in the incidents described. The boy who would not lend his goats to the beer-seller, although he wanted the bright half-dollars offered, and the combative urchin, who went at a school-fellow and pommelled him soundly for striking "little Willie," are met with almost anywhere now that there are mothers, who solicitiously teach their children about duty and honor. J. N. Stearns, Agent, New York.

THE SOURCE OF THE MISSISSIPPI. A reprint from *Science*, detailing the report of a recent exploration of the Itasca lake region, organized by Messrs. Ivison, Blakeman, Taylor & Co., of New York, for the purpose of settling certain questions with regard to the relations of form, elevation, drainage of Itasca and Elk lakes, and also to ascertain the value of the claims of certain former explorers. The report of the chief of the expedition, Mr. Hopewell Clarke, is given with much detail, and several maps accompany it.

BRITISH COLUMBIA--A pamphlet sent by Mr. L. C. Van't Ward contains a very interesting account of this far North-West country, and carefully detailed information for miners, tourists, emigrants, agriculturists, etc. In many respects there is much similarity between the Southern region of Alaska and the British possession adjoining.

CURRENT EXCHANGES RECEIVED.

New York Observer: Old Presbyterian organ. New York.

Illustrated Graphic News: Stirring and Gossip. Cincinnati, Ohio.

Medical Summary: Paragraphs and brieflets for physicians of all sorts. Philadelphia.

Literary News: An eclectic review of current literature. Illustrated. New York.

The Woman's Magazine: Sphere the Relation of Woman to Industry, art, literature, charity and reform. Brattleboro, Vt.

Publishers' Weekly. The Publishers' Annual Summary number is a convenient index for reference, and shows enterprise in its arrangement.

The People's Health Journal: A practical monthly that has such good features that it should be encouraged. Drs. Rogers, editors, Chicago, Ill.

Christian Thought for February has: "The Mission of Music to Mind and Heart," by Prof. B.C. Blodgett; "The Labor Problem and the Churches," by W.G. Moody; "The Labor Troubles and the Sabbath Law," by C. F. Deems; "The Laborer not a Commodity," and "Views and Reviews." Wilbur B. Ketcham, New York.

Lippincott's for February is evidently gaining. The complete novel idea suits the popular taste, and we think will be imitated by other monthlies. Besides the "Self-made Man," the following heads are noticeable: A Day with the President, Mere Egotism, Rothenburg Felicity, The Golden Age (poem), Our Actors and their Preferences, Two Ways of Telling a Story (a satire), and Our Monthly Gossip.

The Menora Monthly: Official organ of the Hebrew order of the B'ne B'rith, deals chiefly of course with topics of interest to the members of that important association. Papers of an inviting character to the general reader occur here and there in the pages. In the February number "Pages from the Life of Moses Mendelssohn," is the leading article, with a beautiful photo print as frontispiece. B. E. Peixotto, New York.

The Eclectic Magazine of Foreign Literature for February gleans from the better sources such matter as this: Goethe and Philosophy, The Fall of an Island, The

Character of Shelley, France as it Is and Was, Dreams, Confederation—The Solvent of the Eastern Question, Christianity as the Absolute Religion, Lazarus to Dives, The Matterhorn and Its Victims, and other inviting titles. New York.

The Homiletic Review for February comes to us with a pretty full review section, and much variety in its sermonic and other departments. Among the topics discussed are: How Can the Pulpit best Counteract the Influence of Modern Skepticism? The Best Methods of Getting Church Members to Work, The Church in the Catacombs, The Sphere of the Pulpit, Possibilities and Revelations of the Future State, The Doubter, Evangelizing Methods, etc., etc. Funk & Wagnalls, New York.

The Popular Science Monthly for February has a notable article on "The Laws of Habit," by a Harvard professor, that shows progress in't at rather conservative institution, so far as metaphysical doctrine is concerned. But that professor has awakened lately to a personal interest in psychical phenomena. Further we would mention, The South African Diamond-Mines, Science and Morals, Some Points on the Land Question, Massage, A Sketch and Portrait of Charles C. Abbott, the Naturalist; and a variety of miscellaneous items. D. Appleton & Co., New York.

The Century Magazine for February opens with a fine portrait of Dr. James McCosh, in which the Scottish lineaments are striking, and follows up the frontispiece with a sketch of Nassau, as a midwinter resort. "Abraham Lincoln" is rich in reminiscences and illustrations. The Oldest Church in London will please the archæologist. Father Taylor and Oratory, The Stars, Recent Discoveries of Works of Art in Rome, The Relative Strength and Weakness of Nations, Lee's Invasion of Pennsylvania, are among those topics that to us give this number a peculiar interest.

Harper's Magazine for February has three serial stories, four richly illustrated descriptive articles, besides its strongly sustained editorial departments. Of the titles we would mention: "Moose Hunting by Jack-light," "The Arcadian Land," a graphic description of the broad and level district south and west of Bayou Teche, Louisiana; "Campaigning with the Cossacks," "The Wish," a poem of Cowleys, finely illustrated; "Narka," a story of Russian life. The Editor's Easy Chair has something practical to say on a very urgent topic of the day: Why domestic Service is Distasteful to American women; and the Editor's Study canvasses some of the points of our leading story writers.

AMERICAN INSTITUTE OF PHRENOLOGY.

Institute Extra.

Devoted to the Interests of the American Institute of Phrenology.

No. 16.]

MARCH.

[1887.

THE AMERICAN INSTITUTE OF PHRENOLOGY was chartered in 1866, but before that time many classes in Phrenology had been taught, and as a result of such brief courses of instruction a few excellent and successful workers had entered the field. Others had managed to take a lesson or two, simply that they might be able to say that they had received instruction from us, and thus secure the confidence of the public. Some of these did poor work which was a damage to the subject and to those who were supposed to have been their teachers. Accordingly the leading friends of Phrenology, deprecating the lack of knowledge on the part of some who were lecturing, resolved to establish a Normal Institute, in order that the public could be supplied with lecturers and examiners who had enjoyed opportunities for instruction in the principles and practice of Phrenological science, and applied for an act incorporating the AMERICAN INSTITUTE OF PHRENOLOGY, which was passed by the Legislature of the State of New York, April 20, 1866, with the right to hold real estate to the amount of one hundred thousand dollars; to collect and keep for public exhibition a museum of busts, casts, skulls, and portraits illustrating Phrenology and Physiology; to instruct pupils, grant diplomas, etc.

NELSON SIZER, *President.*

C. FOWLER WELLS, *Vice-President.*

HENRY S. DRAYTON, A. M., M. D., *Secretary.*

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CLOSING EXERCISES OF 1886 AND PROGRAMME OF 1887.

OPENING ADDRESS BY Mr. N. SIZER.

FRIENDS OF THE CLASS OF 1886: We have reached the time to complete the work of our last meeting for this term. We have a custom which has been kept for a fifth of a century, to exchange congratulations, to talk a little to each other face to face at the closing, and in accordance with that custom we continue it to-day, regretting meanwhile that some of the excellent timber belonging to the class, some six or eight members, have found it necessary to return to their homes earlier than this closing day, and we shall have to content ourselves to finish our work in their absence.

We will ask Mrs. Wells, the Vice-President of the Institute, to offer such remarks as she may desire to do, after which Dr. Drayton, the Secretary, will follow, and

perhaps I may say something, then the class will speak if they desire to do so and thus fill our programme. Mrs. Wells will now speak:

MRS. WELLS ADDRESS.

Anniversary meetings of different associations and Institutions are very numerous at this season of the year in our country, and of late years we have heard much of Centennials and Semi-centennials. Last year, in 1835—we called it a Semi-centennial jubilee, reporting and illustrating it in the American Phrenological Journal, it being the fiftieth year since my brothers, Orson Squire and Lorenzo Niles Fowler, began their itinerancy as phrenological lecturers, in 1835.

The first class in Phrenology was taught by me, in 1835, fifty years ago last year, in

Ludlowville, Tompkins Co., New York, and that was the year when my head was examined and chart marked by my brother L. N., from which time my study of the science began, and my first efforts in examinations were made; the first being July 5, 1835, of a Theological student, now Rev. Joel Wake-man, D. D. settled and still doing pastoral duty at Painted Post, Steuben Co., N. Y. I also made many examinations in Ithaca Tompkins Co., the last part of 1835 and the first part of January, 1836.

This year—1886—is another semi-centennial, being the fiftieth year since my brothers opened an office in New York City for the examination of heads and delineation of character phrenologically.

At first L. N. came and opened an office in the Spring of 1836, on Park Row, the next door north of the old Park Theatre, since destroyed by fire, which then stood on Park Row opposite to where the General Post Office now stands, at the lower end of City Hall Park. A few weeks later O. S. came, and L. N. joined him, and our office was opened at 135 Nassau Street, in Clinton Hall, on the southwest corner of Nassau and Beekman Streets. This year of 1886 is the Semi-centennial of that event. Those were notable days. A hall for public lecturers was over our heads, and there my brothers lectured, and many interesting occurrences took place which served as landmarks in Phrenology. Lectures were given free, and collections taken to defray the expenses of hall, etc., and the public examinations which followed the close of each evening's lecture afforded topics for warm discussions and brought many persons for examinations in the office. At one of those lectures a gentleman was chosen as a subject for examination, of whom among other things it was stated that Conscientiousness was small, and although his large Benevolence led him to do many kind acts, yet he did not have, as most people do, a sense of *duty*, of *right* and *wrong*. When invited at the close of the delineation to state to the audience as to its correctness, he remarked that it was all just as the lecturer had said except in one statement, and he knew that Mr. Fowler could not know who or what he was except by the inferences he drew from that examination. "It has during the delineation been said that I am made for a deep thinker, a close reasoner, a public speaker, all of which is true, but, when Mr. Fowler said Conscientiousness was small he made a great mistake, 'for,' said he, (with emphasis), '*I never did a wrong act in my life.*'"

After a moment of silence the audience roared with laughter, they saw the point, for large Conscientiousness is a self-accuser, but his was too small for that.

That was in the days of Fanny Wright, a woman noted for her infidel views, and a

lecturer and advocate thereof, and that gentleman was one of her coadjutors or followers and nearly as noted as she was.

My brothers' lectures in Clinton Hall created a great excitement in those days, and people took sides for and against the subject, causing many discussions, and much ridicule came from the negative side. The friends were warm friends, who brought in their friends for examinations and also skulls to test our ability to read them. One morning a young man named E. P. Hurlbut, afterward Judge Hurlbut—and he was a good man, too—read in the morning paper that Stephen Burroughs was in town, and when passing our office on his way to his own office called to tell us of the fact, and that it would be well to obtain a cast of the head of that noted man, and also a chart of his head for publication. So earnest was he that on his return at night from his office, he called to inquire if his suggestion had been acted upon. He found the cast of Burroughs on the shelf, where it remains to this day, and had the satisfaction of seeing his chart and written description, which were afterward published in the *Phrenological Almanac and Journal*.

Mr. Hurlbut discussed Phrenology at his boarding house with some wealthy young men who thought they knew all that was worth studying, and was ridiculed for his credulity. At length they consented to allow Mr. Fowler to examine their heads, if Mr. Hurlbut would invite him there, and if he was correct in his delineations they promised to believe, but when the test came they charged Mr. Hurlbut with having told L. N. about them, and for several weeks insisted upon it; but finally became convinced that he had not. One of the young men was told that his love of fast horses was very strong and he was probably to be seen on Bloomingdale Road, (then the racing course) behind a fast trotter every pleasant day—which was literally true—and so on of them all.

One evening, in the Spring of 1837, O. S. was invited to the Astor House to examine a party of young men who were entire strangers to him. (See *Phrenological Journal*, pp. 312—'13 and '14, vol. IV.)

For several years in those early days, I kept a diary of notable occurrences, and on looking it over I find mention made of the time when Dr. McClellan was brought to our house for an examination. He had ridiculed Phrenology, and so these friends brought him in, with the understanding that he was not to speak till after the examination was through, for they brought him as a test for themselves, as well as *hoping* he would be converted, and yet, they knew there was one thing *they* could not reconcile nor did they see how it could be done. It was with regard to the organ of Language,

which *they* thought small, and yet he was a great talker.

I was called to take the notes and write it out afterward. Brother began by telling him that his brain was large and his temperament very active, that his perceptive organs were all large and enabled and disposed him to gain a great deal of knowledge, and with his large Adhesiveness he must have many friends. The general inference was that he could not keep his knowledge to himself, therefore *must* be a great talker—not because of a large organ of Language, for that was small when compared with some of the other organs, therefore he would have to talk more to say the same things, and my brother used this expression, “It is with you as with a full jug, turned upside down, with the stopper out, and it makes a great fuss, gurgle, gurgle, gurgle—whereas one with large Language uses the right word to express his thoughts, and that is more like pouring water out of a pitcher.” He also told him that with his very large Benevolence, Destructiveness, Locality, Constructiveness, and all the perceptive large, he was capable of becoming an *unusually* excellent surgeon, thus giving pleasure to Benevolence by relieving pain through Destructiveness, which caused it, and his Locality aided or told him just *where* to cut so as to avoid veins, arteries, etc.

Dr. McClellan, the greatest surgeon of his day, became a firm believer and advocate of Phrenology, and for the rest of his life was one of our best friends.

Thus you see something how Phrenology stood fifty years ago. Compare then with now. Since then Phrenology has been the theme of thought and labor, has been disseminated to the “ends of the earth,” has exerted an influence over many thousands of lives of men and women in America and other countries.

Next year, 1887, will mark the Semi-centennial of my advent in New York and joining my brothers in this good work. 1888 will mark another Semi-centennial, when the *American Phrenological Journal* and *Miscellany* was started.

In my talks to the class I have already told you of a few of its vicissitudes, and you have, within the last months, had an opportunity to judge something of the change that has been wrought in half a century.

This Institute has been in existence twenty years and next year it will be of age—twenty-one years old, the age at which a man can vote. Let us hope some great benefit may come to it then.

ADDRESS BY DR. DRAYTON.

I have frequently said that upon occasions of this sort, it is the students' privilege to

oust us on the floor; and if you please, you may continue to tell more of those good stories that were told by some of you last night.

A thought occurred to me this morning on my way to the office, and I have been so busy since that nothing else has presented itself that seems better fitted for a moment's consideration; that thought is the old proverb—“No man is great to his valet.” Greatness is necessary to understand greatness. Present a great truth or principle to a person of fair intelligence, yet with no culture, and what may you expect? He will not appreciate it in its breadth, in its comprehensiveness, no matter what may be the principle. Although it were something that is well known and frequently talked about, yet culture, education, mental expansion, would be necessary to comprehend it in its various applications. We often hear men talking about education; and what a variety of opinion they express. Take the laborer on the street, or the average mechanic; he is satisfied with but a small amount of mental development and considers that quite sufficient for all the purposes in life. Now when we come to consider any great subject—of course I include Phrenology—as our acquaintance with it increases, our comprehension of it broadens, and we as it were grow up with it.

When the traveler on the sea is approaching Vera Cruz, and is about a hundred miles distant, if it be in the day-time, and the sun is westering, his attention is called to a glittering point in the distance, something that looms up star-like and alone. As the vessel goes on toward the port, that glittering point loses its sharpness, but gradually a dull outline unfolds itself, and after awhile a great mountain is fully revealed that looms up in grander, more majestic proportions. That is the famous Orizaba, and I hope, gentlemen, that most of you came here with a view of Phrenology somewhat like that of the traveler as he approaches Vera Cruz—gazing upon it as a glittering point, fascinating and attractive, and developing with your increasing information into a grand, colossal structure, the fabric of scientific truth that you believe to be worthy of your most earnest regard. Now I trust that I do not mistake in this matter, and shall expect in the course of the afternoon to hear you express opinions that will confirm this impression.

Simply a word more of admonition; perhaps it is altogether unnecessary, yet I always feel that it is incumbent upon me to add something of counsel that you can take away; an idea, if nothing more, and even though it be an idea that you have frequently thought upon. May I urge that you will be earnest in the presentation of this subject. If you believe it, if the con-

victions that you have brought here have been confirmed and strengthened by what has been said to you, then, when you discuss this subject in any way, in any field, with any one, be earnest in its presentation. Emerson says, that a truth gathers force in proportion as there is a man behind it. So when you present this, feel that you are the man presenting it, that you are the man behind it, and make it tell.

There is a good story told of a Southern Methodist minister who, when his Conference was discussing the text "Feed my Lambs," said, "Gentlemen, what has been said already on this subject is very good in its way, but I think I can add a word or two that all will appreciate. I find in my experience as a farmer that there are three very important things to be considered in the matter of feeding lambs; first, to give them good stuff; in the second place to give them a little at a time, and in the third place to give it to them warm." Gentlemen, you have in Phrenology good stuff, and should remember in discussing it with those who are not your equals in the matter of acquaintance with it, that it is better to give them a little at a time, and not to overwhelm them with big-sounding words and phrases, great breadth of argument or a great mass of facts, but a little at a time, and in your earnestness, to give it warm.

ADDRESS BY MR. N. SIZER.

BELOVED FRIENDS:—After talking to you for two months, after standing before you more than a hundred hours and trying to turn myself wrong side out, as we do a pocket, or a sack of wheat to give you every kernel of what we think, and know, and feel, it seems to me like squeezing a lemon the hundred and first time to get anything more to say; but when I remember how much there is of the subject, I feel that there is certainly no lack in the subject, if I have nothing more to say, but rather in the one who is called to speak.

Mrs. Wells tells you that this is the twentieth year of the Institute, and I may add this is the twenty-second session of the American Institute of Phrenology now closing, as there have been two Summer sessions. Mrs. Wells and I were in at the beginning, and Dr. Drayton I think, was one of the first students; he was in the first class, and now he is in the latest, but I trust not the last class.

You have come from every side of the world. We have four from California, and since we began to teach classes, but before the Institute was incorporated, that was an unknown land. We have two from Canada, Pennsylvania has shed her sons down upon us like a quiver full of arrows as she gener-

ally does, and Ohio is well represented, as usual, which State, when I was a boy, was a land of bears and silence and shadow. Boston has honored us with one pupil; the culture of Boston doesn't quite equal the necessity, and they have to come to New York for this form of it; Kansas also sends us one student, and though last but not least, Australia sends her representative son, a graduate of her University, and we bid him God-speed as he bears our diploma, as a testimonial of faithful instruction, back to his native land, to teach Phrenology, where teaching we trust, will meet with an ample harvest of reward. So you come from all over the world, brethren, we greet you as friends, coming to us as strangers, we bid you welcome, and send you away as friends, as brethren beloved, members of like precious faith, laden indeed with all we are able to give you, facts, arguments, truths respecting the central subject of human inquiry, namely, mental life and mental law.

The world calls itself educated when it has studied the laws of the planetary system, the composition of the earth, and of the forces which nature reveals. Men study the human body, they subject it in health and in disease to the inquisition of the microscope, they study the human being as high as the eyes, and until Phrenology began to stir up the public and teach that the brain means something as well as the liver, and stomach, and lungs, very little study was devoted to that part of the human organism located above the eyes; brain was an unknown land. Now our critics of the medical world are trying to re-discover the true mental philosophy by various methods; they are trying by vivisection to localize mental power in the brain, and if they could only manage to find out by their extraneous methods where each impulse has its origin in the brain, they would call it, I suppose, the new Phrenology, they would re-discover it, and would give Gall and Spurzheim, perhaps, the credit of having used the word Phrenology. They want to find out what it is that thinks, and feels, and enjoys, and suffers, and how and by what means brain develops mind and character; they try it on dogs; they have made some progress on the human race, and we suppose that after a series of years and experiments, guided perhaps by the phrenological investigations, they may be able to discover a good many of the local forces in the brain; we hope they will do it; but we believe that Phrenology to-day is the only correct method of comprehending the human intellect and human emotion; we believe that a well instructed Phrenologist can take twenty men in a dark room and examine each one and the party shall know each man that is under the hands of the examiner not a word being spoken except in the delineation of the char-

acter. It may not be so accurate a likeness, mentally, as a photographic instrument might give of the outer man, but if we can describe character so that people who know the man will know who it is when they do not see the person, and that has been done many a time, it is the best method of reading mind that the world has found hitherto.

I want to say a word to you about the attendance upon these instructions—in a class of twenty-five or thirty people, there is generally one or two who were born late and have always been behind about half an hour; but since this class commenced, there hasn't been, to my knowledge, a tardiness of ten minutes on the part of any member of the class; and I haven't been obliged to ask them to come at ten o'clock, *sharp*; I have always found them waiting, and have apologized if I happened to be five minutes late myself by having somebody under my hands at the office whom I could not decently dismiss early. This promptness makes me believe that you will be earnest in the work that is before you. Let me say to you in all earnestness and sincerity, you may now stand up and face the entire world, learned and unlearned, and profess to describe character by the temperamental constitution and by the organization of the brain, and if they criticise and carp at you, you may feel that you are the central figure of that group, and master of the situation. Sometimes people will say this or that isn't the case, that you are in the wrong. A man in Tolland, Connecticut, in 1847, walked four miles to have me examine his head; I described him as possessed of a certain organ large, it was Continuity; and he said it wasn't, it was moderate. There happened to be two other Phrenologists in the hotel, one was my associate, Mr. Buell, and the other was Mr. Gibbs, formerly my associate; one of them came into the room, and I said, "See how large such an organ is," not naming Continuity, and then I named over four or five, and he marked Continuity as I did. Pretty soon Mr. Gibbs came in and did the same thing—there were three of us coinciding against the judgment of himself. He walked home to Tolland four miles, and two days afterward he trudged all the way back to Rockville to tell us he had been all over town telling his neighbors and friends that we hit it right except in one point, we said he had large Continuity, and he was sure he hadn't; they contradicted him point blank, and told him that we were right and he was wrong; and he came back to tell us. We had marked Conscientiousness large, and we told him that was an evidence that another of his faculties was largely developed; and as an evidence also that Continuity was large, he could not rest until he had come back and fixed the thing all right.

Do not be afraid, gentlemen, to tell the

world what you think; you need not tell it all. I have examined heads sometimes with my fist clinched, and ready to ward off and pay back if the man should rise on me; and two years afterwards I found out that two or three men that had drawn up close to the platform as if to hear better, came there to defend me in case the fellow did rise on me, because he had just come from State's prison, after serving a seven years' sentence for manslaughter; the worst man in the State of New Jersey at that time; but I declined to examine his head. I told the audience I preferred not to say what I thought was true, and I would be obliged to him if he would retire; and he left; and he did not hear of it till two years afterwards while lecturing two hundred miles distant.

As it regards the teaching and the teacher I wish to say (that which you already know) that you have had as teacher two who have borne the burden and heat of the day for half a century; we wear no professional insignia, we are neither L. L. D., nor D. D., but we have done what we could and are satisfied that we have done our best. You have had six physicians as lecturers, which shows that some physicians believe in Phrenology. You have had one Congregational minister as a lecturer, you have had one lawyer, who is also a doctor, and a minister who is also a doctor, and there are none but Mrs. Wells and myself who boast of no titles or rather bear none; consequently you have been taught by people who understand some things besides Phrenology. You have had two men lecture to you who were expert in the treatment of mental disease, insanity. Dr. Buttolph is second to no man to-day on earth in his experience of, and knowledge respecting the treatment of insanity. He has been in the subject as long as Mrs. Wells and I have been in Phrenology, about fifty years, and he were not a friend of ours we would say he is one of the best men living. And then Dr. Buttolph carried O. S. Fowler through small-pox, forty sixty-years ago sitting by his bedside and nursing him through. If O. S. Fowler has done any important service to the world, Dr. Buttolph saved him for his future work. And Dr. Ordronaux is a lawyer, and for many years he has been the state commissioner of lunacy of the state of New York, thus in one sense the master of all the lunatic asylums in the state, so that whoever asks you if doctors believe in Phrenology, you can say that you happen to know several that do. And then we have had three doctors as members of the class; we generally have one or two ministers; the ranks of the class are pretty full of teachers as a rule, this year is no exception, and we have one lawyer as a student; perhaps one lawyer for such a clientage is sufficient. And so, brethren, we have rejoiced together; on our part we have

tried to do our very best in your behalf; you have treated us with constant kindness and courtesy, and we shall remember your faces, your names, your places of residence; we shall follow with interest and hope and expectation, the pathway you make, and we trust it shall be a pathway of virtue and light.

After the delivery of the Diplomas we will ask the students to speak, and first call on Mr. Orvis, of Wisconsin.

ADDRESS BY H. F. ORVIS.

FELLOW STUDENTS: Your friendly partiality in choosing me to lead in the speaking, at these our closing exercises, awakens my grateful thanks, but may not justify your skill as character readers in the selection you have made. Nevertheless, as our preceptors have expressed an honest pride in the proficiency of the class in the art of judging and describing character, I suppose it becomes me to submit to your mandate without criticism.

What are we here for? You can each answer that for yourselves. Whatever the incentive, we hope it is laudable, and has in view a noble purpose, whether you are going into the lecture field, behind the counter, to plead at the bar, minister to the sick, speak the living truth from the pulpit, or follow the plow, you will find that the two months spent in this Institute will be of great value to you. Like all knowledge, that which you have gained here will be dangerous if unadvisedly applied. The more knowledge the evil minded man has, the more harm he can and will do. Those of us who wish to disseminate the truth concerning the Science of Man and his relations to himself and his fellow beings, may remember that "the field is the world," that it is broad, and the people are eager for that knowledge which is wisdom. We can not all preach like Paul, nor can we all leave a name in the phrenological field like Gall, Spurzheim, Combe, Fowler, Wells, and last, but to us, not least, our beloved and faithful senior tutor, Professor Sizer, from whom, alas we must part! The genial face of the earnest instructor will ever be remembered with pleasure.

The future may prove to be as bright as the past is pleasant, but whatever befalls us let us remember that "Honesty is the best policy," be strong in the right, honoring the profession we have chosen. Our actions and appearance will have much to do with our success in our work; people will criticise us and magnify our faults, we must therefore, brethren, avoid the shallow trickery and deceit which appear to be the stock in trade of some who are now in the field. It is gratifying to know these pretenders are not graduates of the "American Institute of Phrenology." Such men are soon found out, their career, as it ought to be, narrow and brief. Let our conduct and work show that we are worthy of confidence and respect, and we and our work will be accepted and honored.

Fellow students, let us go forward, not seeking simply to gratify the selfish propensities and baser faculties, but show by our good and honest efforts that we are in ourselves cultivating the higher and better faculties in regard to which we teach. Our example will go farther, and be remembered longer if we practice what we preach. Some of us have a little experience in the field, and have had a taste of the bitter and the sweet. It is not all smooth sailing before us. We are to meet our fellow man in all his peculiar phases.

Our profession is not free from the intrigues and deceptions of cunning men who will try to entrap us. Submit to no blindfold test until we have had more experience; we now need both the hands and eyes to discern whether the finely developed head we are examining has an equally fine and well-balanced body to furnish it with proper nutritive

support. We must be alert, not suspicious, lest we misjudge; we must be honest and frank in examination, but if in public it would be offensive to the subject to say what in truth we would be warranted in saying, we may courteously decline to delineate the candidate's developments. Flattery is to be avoided. Some phrenologists seem disposed to give every candidate a desirable character, especially when the examination is public; stating that the subject would succeed in the profession of law or medicine, forgetting that there are other callings, not considered professional, which are quite as honorable and useful. A man to be a good farmer has to be something more than a mere laboring man; he ought to be able to analyze the soil so that he may plant with a view to adaptability and future profit. Sometimes an over-anxiety to please a patron may mislead us; outside pressure may be brought to bear to influence our verdict. Make up your mind what is true of a subject and what properly may be said of him, and say it plainly. In private examinations you can "magnify your calling" by kindly pointing out defects and showing how to remedy them.

Now, if I may be allowed one word about advertising ourselves as graduates of the *American Institute of Phrenology*, in large and showy letters, to this I say, "No!" let us be modest; we may none of us prove to be a necessity to the success of the science, or as bright and shining lights in its service. This Institute can not, nor does it undertake to make great scholars and orators of us; it aims to teach all that it knows of Phrenology but does not give us genius. It is just and honorable in us to speak in praise of it, and ever give to it due respect, as in that case the honor will reflect on us. Let it not be said of us that our words and work lack moral tone; not that we should assume piety without its true inwardness. People are not blind to the indications of character, although they may know little or nothing of Phrenology. Rest assured our motives can not be hid; if they are noble we need not blazon the fact. "By their fruits ye shall know them."

A clergyman took a vacation in the highlands of Scotland, and thought he would go fishing, so purchased a fine pole and elegant outfit. He cast in his hook with great expectation, but caught nothing; after patiently holding his gilded bait and pole for several hours, he turned away from the stream in dissatisfaction. A poorly clad boy, having an undressed sapling for a pole, and rough twine for a line, stood near by with a large string of fish; the clergyman asked "well my lad, how is it that you have caught so many fish and I have caught none, I have been diligent all day?" "Weel," said the lad, who had evidently been watching his reverend neighbor, "ye maun na show yersel to em." How true it is that men have been disappointed because they did not fully realize the Divine promise "ye shall be fishers of men," the principle reason of their failure being that they *showed themselves* to the people instead of hiding behind the cross and speaking the plain truth. So, brethren, let us show up our subject, and hide ourselves and our faults if we can, and demonstrate truth by our acts. We are not above the science we teach, and should be willing to say "Come, let us reason together." By our honest efforts let us show people that we respect them and love the truth, and we will gain their respect and confidence.

To Phrenology I owe the appreciation of a mother's prayers and counsels, and can now see why it was so necessary that I should receive in early life the impressions that I now cling to so tenaciously. Had the influences been different, my mind might have been bent in a different and less desirable direction, and with the same firm determination I would have held out to the last.

To this few weeks instruction do I owe an acknowledgement of a reconciliation in my own mind to the development Phrenology accords to my own faculties. I can now see why secretiveness is large and yet in some ways I am not secretive; that cautiousness is not small and yet is only manifested in certain ways; that combativeness is not

large and yet by its peculiar development I am argumentative but not quarrelsome.

And now my dear fellow students, we must say farewell; to some of us it will be the last time. If we should hereafter meet in our fields of labor let the grasp of the fraternal hand be strong. I can say for one, "is not the whole land before us. If thou wilt take the left hand, then I will go to the right; or if thou depart to the right hand, then I will go to the left."

In conclusion I will not mention each one of our esteemed professors and instructors; they have each manifested a good will to deal fairly and gave us all they could in the time allotted to each; our only regret is that the time could not have been longer, but let us, following their example, try to instruct whoever and whenever we can with equal zeal and earnestness, not forgetting that we are likely to be criticised, sometimes perhaps justly, and sometimes unjustly, remember that "To err is human; to forgive divine."

ADDRESS BY A. J. CORFMAN, M. D.

PROFESSORS, CLASSMATES, LADIES AND GENTLEMEN: As time rolls on, each succeeding wave brings into active life numberless human beings to mingle with each other and grapple with conflicting fortune; to battle against opposition and thus become living elements in the great drama of life.

It is vitally important that each individual should be fully decided in the choice of his vocation, and properly understand his capacity for accomplishing the end for which his talents and energy are called into action; that he may successfully do his part in fulfilling his mission of life.

It is the imperative duty of every lover of noble principles to apply his powers to discover the necessities of the age in which he lives; search vigilantly for truth, and, whenever found, bear it bravely onward.

As each of us wish to be governed by the best principles let us consider our immediate surroundings, see what we are, and what are our future prospects and responsibilities.

We find that we are students of the American Institute of Phrenology of New York.

Is it not a delightful thought, is it not a great privilege to realize that we are the favored ones who, this afternoon, enjoy the benediction of this Institute?

And is it not a solemn responsibility to be sent forth as representatives of the great principles and science of Phrenology, which are here taught with distinguished ability, and demonstrated with artistic skill?

Rare privileges have we enjoyed, sitting in the presence of professors who have discoursed so freely, so definitely, and so truly on the beautiful science of Phrenology, the formation and composition of the human body, the arrangement and action of its many organs, the vitalizers and depressors which act upon it, the forms of disease which taint and destroy both body and mind; and many other things which combine to make the true Phrenologist and physician, all emanating from a college teaching mental science.

This assertion might be denounced by many who are prejudiced, but honest and misguided, yet it is none the less true.

Phrenology, like many other subjects, has only two sides to it. It is either right or wrong, true or false. If true, its revelations will be consistent, harmonious and unchangeable. If false, its teachings are inconsistent and uncertain. Although open foes and secret enemies are many, and their combined influence is very powerful, it only acts to retard the progress of Phrenology. It can not mar the beauties of the science, nor overturn the principles upon which it is founded. Revolutions may upturn and demolish the institutions of man, may shatter to atoms the strongest edifices he can erect; but truth is immortal and will stand the "wreck of matter and the crush of worlds."

The exercises of this college may take a recess;

the teachers of it wishing to be relieved from excessive toil may take a more retired position; but the great work they have commenced can not stop. The truths they have promulgated can not lie dormant. They will find supporters in different parts of the world, who will keep the fires burning, and the bright light of Phrenology will shine forth in all its resplendent purity until it will illuminate every portion of society.

Fellow students, I would say to you, be honest, be firm, stand by the college you represent; stand by and defend the principles you profess.

Kind Professors, I offer you the well-earned tribute of a student's approbation, receive my heartfelt thanks, and may we ever remain sincere friends.

ADDRESS OF HENRY V. HANAN.

RESPECTED TEACHERS AND CLASSMATES: The parting hour has come, and with it a feeling of sadness that we must part, and one of gladness that we have completed this course of instruction.

My mind is full of the subjects upon which we have been taught, and yet I have not the least idea that I can now realize the full extent of the instruction which we have received here. The thoughts and incidents which have fallen upon our ears, and passed before our minds, will be constantly recurring to us all through life.

We can never forget the principles which have been so well presented by our worthy instructors, and so thoroughly illustrated by these portraits, casts and skulls, all of which seem vivified with new life when viewed from a phrenological standpoint.

Fellow students, this period will mark a great change in our lives; it is our duty, as well as our privilege, to disseminate this most beneficial knowledge for the good of mankind, whether in private conversation or in the lecture field, or from the pulpit. Let us teach mankind the true nature of their powers, of the relation of persons to each other, to nature, and also to the Creator and Savior of all.

Nearly fifty years of study and experience has taught our venerated senior instructor that men generally under-rate their talents and over-rate their morals and religious nature; hence the need of teaching them this fact, and that every faculty is given them by the Creator, and that the legitimate object or means for its gratification also exists; and therefore the existence of any faculty is proof of the existence of a means for its gratification and vice versa. Thus we have natural appetite, and food exists for its gratification. We have a desire to acquire, and property exists which may be obtained for its gratification. We have social affection, and society exists as its counterpart. We have a love of the beautiful and beauty exists.

"Veneration" thus proves the existence of a God and our duty to worship him. "Spirituality," considered in regard to its natural functions, proves the necessity of a belief in the infinite, unseen and incomprehensible.

"Hope" proves the reasonableness of expecting that which is desirable. "Conscientiousness" teaches that men should be just and righteous. "Benevolence" proves that men should be kind and generous toward all.

The happiness of an individual increases in proportion to the degree of exercise and development of all the faculties, harmoniously blending in their action; hence it is to one's highest personal interest to thus exercise and develop all.

These principles of phrenology I have long recognized and have regarded the analysis of the organs and the supremacy of the moral sentiments as one of the best aids to the understanding of the Holy Scriptures.

As I expect, some day, to enter the ministry and have now given the subjects taught at the American Institute of Phrenology, some years of study, I can most heartily recommend them to all who

have already entered or who expect to enter, that noble calling, as an invaluable aid to success.

You, my worthy teacher, have my thanks for your instructions, and all who are engaged in the dissemination of truth have my sincere desire for their success.

ADDRESS BY BENJAMIN F. LOOMIS.

TEACHERS, STUDENTS, FRIENDS: I look upon Phrenology as the true basis of all mental science. A knowledge of which, with Christianity, places man in harmony with the laws of his being and with the world.

When we study mental life in all its phases, from the lowest insect up to the perfect man, we see that every being has an organism adapted to its own mental conditions.

When we look upon the multitude of people that throng our busy streets, we see that there are no two who are formed alike. And if it be true that we are governed by the laws of the universe, there have been no two alike since the creation. But as all things are governed by universal laws, we may learn to understand them by proper attention and study.

The mind is not an exception. For when we consider the different shades of mentality, and arrange and classify them in their proper order, we see that the mind is constructed systematically in a rising scale of intelligence. Every man has an object in life; there is a vacancy for each one to fill. And I know of no better method to aid men in finding and filling their proper places than to make these facts clear to the understanding of the people by applying the principles of Phrenology.

Dear brothers, my parting words are these, Let us be earnest in our work, and endeavor to scatter the truths we have learned while together. And if anyone brings up a new truth in science, let us give him hearty encouragement, knowing that new truths have seldom been received with favor.

Let us not be sceptical toward anything, for all sciences blend harmoniously. But let us press onward and upward in the pathway of truth toward the life immortal.

In conclusion, I would say, our teachers have spared no pains in unfolding to us the science of Phrenology and kindred studies, and I hope sincerely that they will long be spared to instruct others from year to year; that the world may become rich in the wisdom which they are so able to impart.

ADDRESS BY R. J. BARRETT.

RESPECTED TEACHERS AND FELLOW STUDENTS: Our course is now ended and we are soon to bid farewell to each other and prepare to go our several ways. Yet what e're betides us for good or evil, I think this is an epoch in our life's history that we can never for a moment forget.

I know of no act in my previous life that I can recall with the same degree of pride and pleasure as the first steps I took towards coming to this Institute.

There was a time, five years ago, when I regarded this advent as among the impossibilities. But as time wore on, and I became more infatuated with the subject, the thought of coming to New York and taking a course in this Institute gradually fastened itself on my mind both asleep and awake, until at last I began to think seriously of overcoming the many difficulties that lay in my way. I dared not consult my friends and well-wishers on the matter; on the contrary, I fought shy of them on the subject, for the reason that they considered it a hobby of mine to be tabooed, and myself to be pitied for indulging in it.

This itself was one of the principal reasons I had for wishing to come here. As I could not reconcile myself to the popular current, neither could I resist being carried on with it; hence I resolved to separate myself from it for a time at least, and

apply myself with those whose teachings harmonized with my views, and gain strength from them sufficient to bear me on and possibly assist a weaker brother.

But the longest night has an end, and at last the morning dawned when I was able to come to New York and join the Institute class of '86, and there drink of the knowledge that I might seek in vain to find elsewhere.

My wildest flights of fancy of five years ago have at last been realized; but that realization has shown what a boundless field of study the subject affords. And, brothers, what more important subject of study can we engage in than the study of man? Its importance can not be over-estimated when we consider man placed here for a purpose, endowed with boundless capabilities, yet reduced to such pitiable condition as to envy the beasts of the field the pleasures they enjoy.

Let us endeavor not only to live perfect lives ourselves, but also lend a helping hand to those that are tottering around us, and teach them wherein true happiness consists; and when we reach the end and lay down our yoke, we can look back on our lives with a feeling of duty done.

I acknowledge myself indebted to the faculty for their many kindnesses to me, and wish them the success and prosperity that their noble efforts deserve.

ADDRESS BY AMOS E. KUNDERD.

WORTHY INSTRUCTORS AND FELLOW STUDENTS: A feeling of sadness rests upon my mind as the last precious moment arrives to spend here together. Eight weeks ago we came together as strangers, to-day we part, not as strangers, but as friends, and as brethren in our common cause, Phrenology. This science has been ridiculed by the wise and the otherwise; and mostly by the otherwise. It has been called the science of foolishness by some and bumpology by others; but the father of Phrenology was not a fool. Dr. Gall was an eminent physician and was not a teacher of bumpology. Some tell us that Phrenology will soon be a thing of the past. No, my friends, but rather will it be taught in the public schools, wherever civilization prevails. It teaches us our own defects and guides us to self improvement. The careful student of Phrenology can read his fellowmen and know how to relate himself to them. Now, my brethren, be not afraid of ridicule by those who are ignorant of the first principles of Phrenology; but go forth teaching your fellowmen that which is invaluable to them. Do your duty toward the science as graduates of the American Institute of Phrenology. You are working in a good cause, and never flag in your efforts or allow yourself to be diverted from your course.

ADDRESS BY FRANK HUMBLE.

WORTHY TEACHERS AND CLASSMATES: This is an age of progress. When we look back on the past and reflect for a single moment upon ancient and modern facilities we are led to exclaim: "What a wonderful change!"

The whole moral and intellectual world has been and is now undergoing a process of evolution. What at one time was dark and unsolved by the most patient thinkers is now plainly and clearly comprehended by the school-boy. Physical science, mechanism, and art, illustrate wonderful progress. But to all these we add the science of the mind. Not long since, the fundamental principles of this great and noble branch of science were understood by few men; but are now spread far and wide. When we meet the thronging multitudes of mankind; seemingly so much alike, yet each representing different characters; we are led to say, what a wonderful science this is, that when in the hands of the careful manipulator the marked characteristics of each individual can be distinctly pointed out.

Let us then not forget the founders of Phrenology, but ever cherish their names, to be hand-

ed down from generation to generation with magnified influence. We should all endeavor fully to understand its teachings that they may be judiciously applied in every day life. Much of the crime and misery of to-day might be easily prevented were the teachings of Phrenology more closely adhered to.

In conclusion, fellow students, do not cast your books aside as the serpent casts off his last year's skin never to resume it; but strive to promulgate this science by your daily life, and apply it in your business and profession. Let your motto ever be, "Let the light shine."

ADDRESS BY W. BRIMBLE-COMBE.

RESPECTED TEACHERS AND FELLOW STUDENTS: On this, the close of the session, I am impressed with two kinds of feelings, a sad one on account of the severance of those mutual regards which have sprung up between us, rendering my stay among you, although so far distant from my native land, both agreeable and profitable, entirely removing any thoughts of strangeness and absorbing me in those brotherly ties which I believe always characterize the graduates of the Institute.

On the other hand, I experience a feeling of pleasure in having had the opportunity of becoming acquainted with the vast amount of knowledge which the Phrenological Institute is capable of affording; both by the collection of busts, paintings and skulls contained in the museum and the different phases of mental science as expounded by those veterans on the subject, as may be found on the staff of its professors and teachers.

By their aid we have had many of those windows through which character reveals itself, made subordinate to our observation, removing what was once doubt and uncertainty, and displaying in its place a goal of success to which we may arrive by perseverance in our studies, and when we consider the importance of the subject with which we are connected, it will, I believe, be found of sufficient extensiveness to call forth our best individual efforts, and that, I feel assured from the interest which has been manifested by each student, will be but a grateful tribute for the knowledge which has been imparted to us.

In looking over the names and reading the biographies of those heroes who have left their "footprints on the sands of time," we are struck with the perseverance that has characterized their conduct, often leading them to live lives of self-sacrifice to the cause which they have espoused, thus enabling them by their patience and skill to force their way to success and raising their names to honor.

Now, since this devotedness is essential to all success, does it not come home to the student of human nature with double force since upon the promulgation of its teachings are human beings to be raised in the scale of creation.

No observer of human nature can go long without being impressed with the want of some definite course to pursue in the placing of society in its several departments on a more substantial foundation, giving it something more than chance, which has hitherto been the ruling element, to reach that success in life, which hinges entirely upon the adoption of that particular calling or profession which best suits their individual capacity.

This regenerative influence, we believe, can be exerted by an application of mental science, since it treats of those laws which govern mental manifestation, and that too in such a practical way that he who wishes may gather gems of truth at every step through life, furnishing us with beacons which tell of danger fraught rocks and shoals which lie below, on which have perished many goodly barques on life's tempestuous voyage, who by the aid of this science would have been carried on in the resistless stream of civilization to success and honor.

Fellow students, this crowning importance of the subject will, I am sure, nerve us for the strife to promulgate its truths; for a strife it will assuredly

be, for Phrenology, like every glorious truth, will have opposition from certain quarters, but whether we are called to labor under fair America's skies or Australia's Southern cross, may it be our undivided effort to raise such a superstructure to this noble science as will bless future generations.

Gathering love by virtue, for this will last
When life's lone footed race is o'er
And this when earthly joys are past,
Will cheer us to a brighter shore.

With these few remarks I wish you farewell.

ADDRESS BY H. H. HULL.

DEAR TEACHERS AND CLASSMATES: It would be ungrateful of me, indeed, if I did not at this our parting hour express my regards for you all and my appreciation of the instruction I have received. I hope I may be worthy of the friendships I have formed while in attendance of this class.

My fellow workers, do not let us undervalue our cause. Surely we are engaged in the greatest study that can interest the mind of man, the study of mind.

Since I commenced the study of Phrenology a new world of thought and understanding has opened to my mind.

Before I understood Phrenology I thought that mankind was wholly depraved, but since, I have learned that each faculty is good and in its natural action gives pleasure, I conclude that man in his normal condition seeks light rather than darkness and good rather than evil.

Phrenology teaches us that by the cultivation or training of the superior faculties the human race can be raised from misery and sin to a much higher state of civilization. Surely nothing will enable one to improve himself so much or succeed in life so well as a knowledge of himself. This knowledge Phrenology gives him as nothing else can.

Classmates, Our field of labor is great. Yet let us ever keep in our minds the axiom, "First, improve yourself to-day, and then your friend to-morrow."

And now, as our hands meet in a farewell clasp, my wish is that you all may have abundant success, and that we shall meet in a brighter and better sphere when this life is ended.

ADDRESS BY MR. PALLISTER.

TEACHERS AND STUDENTS: When I was returning home from the Centennial Exhibition in 1876, I called on Prof. Sizer and obtained a written phrenological description of character.

I am sure there is not a person who had been acquainted with me all my life, who could have described my character with anything like the minuteness which Prof. Sizer did. He described my weak points and strong ones a great deal better than I could have described them myself. And the more I know myself, and human nature, the more I am convinced that he was right.

I never did disbelieve in Phrenology, but this made my faith in it stronger.

It is ten years, or more, since I first thought of coming to attend the Institute; but circumstances have not favored me that way until this year.

And now that I have been here and passed through the course of instruction I do not regret that I have availed myself of the opportunity of attending the American Institute of Phrenology. I think the time and money well spent, supposing I should never make a cent out of Phrenology. But I think there are several ways in which it can be made to pay, and to be profitable, both to myself and others.

Now, we have met for the last time. We are about to separate, and carry influences with us, for good or evil, wherever we go. Let us take heed what our influences are, for "as we sow, so shall we reap."

I shall remember with pleasure the time we have

spent here together. And the pleasure, as well as the profit, we have had in listening to those, who are so able to teach us out of their long experience. Our motive in the practice of Phrenology, should be not only to benefit ourselves, but also to enoble man.

There is a possibility for man, by proper training and culture, to attain to a high standard. But when his passions are unregulated they lead him down to a low grade.

Phrenology is well adapted to the training of human nature. It treats of all man's mental faculties, passions, emotions, and aspirations. By its aid a person may know how to cultivate them; where cultivation is necessary, and restrain where restraint is required.

So phrenology, in its application to human culture may be applied to the intellectual, moral, and religious nature of man, as well as to the lower faculties, and be a means to elevate man to the true position which is his privilege to occupy as the image of God, and ruler of the lower orders of creation.

ADDRESS BY MR. LOMISON.

TEACHERS AND CLASSMATES, DEAR FRIENDS: The time has come when we must part, probably we shall never have the pleasure of seeing each other again, yet memory will often recall the many pleasant hours we have spent together at "The American Institute of Phrenology." We have completed a course of instruction which, if properly used, will serve us in any avocation or sphere of life. Its influence and importance cannot be too fully realized or too highly appreciated. It awakens new fields of thought upon every hand, and inspires us with love for the good and the beautiful; it tends to elevate us above mere animal instincts, and fits us for the highest and best purposes for which we were intended. We extend our heartfelt thanks to all of our able instructors who have so well imparted to us the ample stores of their acquired knowledge with the benefit of their long years of experience. This should stimulate us as we go forth in the fulfillment of our duties in this noble cause. Fellow students may your hopes be realized in extending this science of the mind. We should all work for the benefit and improvement of mankind, and in no calling can we better work, or achieve more good than in the science of Phrenology.

ADDRESS BY V. P. ENGLISH.

WORTHY INSTRUCTORS AND FELLOW STUDENTS: The physical organs of all animals are strengthened, and developed by judicious exercise.

The great strength acquired by athletes in all ages, has been secured by vigorous exertions; not by a few spasmodic efforts, but by a series of wise and long continued endeavors. Those renowned for skill, endurance, and success in rowing, running, swimming, skating, and lifting, have secured their proficiency by earnest and well directed efforts. The wonderful speed attained by the American trotting horse is the result of patient, vigorous, earnest training day after day. In the absence of exercise the deterioration is just as marked. If you should carry your arm in a sling for a few weeks, it would become perceptibly weaker. In a few months the decrease in its strength would be plainly indicated. At the end of several years it would become a helpless appendage, and of no more use in defending yourself from an assault than a dagger of wax. It is just so with our mental faculties. They may be strengthened and developed by the proper exercise, and will just as surely deteriorate through neglect. If you would become skilled in music, you must patiently practice day after day for a long time.

Would you become eloquent and move vast audiences at will? Then you must exercise your faculties industriously. When Henry Ward Beecher was a young man, living in the country, it was his custom to make the woods ring with

the explosion of vowels and the repetition of extracts from favorite authors. Behold the result! Patrick Henry was in the habit of making speeches to the boxes and barrels in a country grocery. A great nation bears witness to his achievements.

Would you reason profoundly? Then think deeply and earnestly. A Newton, a Harvey, a Galileo was not the result of chance nor the work of a day. An oak, with all its strength and grandeur, is not the production of a single night. A mushroom may be. American history fairly teems with examples of self-made men. Poverty is often a blessing in disguise. The sons of poor men are the intelligent and successful leaders of American civilization. Witness Franklin, Webster, Lincoln, Grant, and a host of others. At first thought this might seem strange; but viewing it more carefully, it becomes perfectly plain that it could not be otherwise. The sons of poor men are compelled to take the exercise necessary to develop their organizations. The position of the rich man is like the weights of a clock immediately after winding. His ancestors have wound him up, and all he has to do is to run down, and the rapidity with which some of them accomplish the feat is wonderful.

The poor man's son is at the bottom and must wind himself up, and the very exertion of the winding is what makes him a man of power.

Our worthy instructor, Prof. Sizer, did not happen to reach his present desirable position as one of the great leaders in making known to the world the teachings of Phrenology. He wound himself up. The scientific researches of Mr. Drayton and Dr. Sizer, have cost them many a weary hour of patient investigation. Dr. Buttolph and Dr. Ordronaux did not make their valuable additions to the best means of treating the insane, by walking the street and leading a poodle by a fancy string. Dr. Gunn did not gain his ability to perform those interesting and instructive experiments in mesmerism by loafing in a beer saloon.

But, ladies and gentlemen, for the best example we must look still further. An example in which feminine gentleness has rivaled age, excelled the pluck, energy, and determination of the sterner sex. The clinging persistence in the support of the JOURNAL, the maintaining of the office under circumstances that would have discouraged a heart less brave, the devoted and watchful tenderness at the sick-bed of a brother, are a few among the many instances that render her a true heroine. Long may she live as a guiding star to future classes.

Fellow students, the purposes of our coming together in the American Institute of Phrenology, are accomplished. The hand-shaking will soon be over, and we will separate to our different homes, perhaps never to meet again on earth.

But the memories of our class will be a bright star in the skies of our history. Here our efforts have been united. Now our ways will lead in different directions. But wherever may be our field of action, let us remember that success depends upon our own efforts. That our struggles will strengthen and develop our manhood whether otherwise a success or not.

Let us ever walk and conduct ourselves as just and upright students of science, remembering that the first great element of success is action, the second is *action*; the third is ACTION.

ADDRESS BY JOHN E. KRAMER.

PROFESSORS AND FELLOW-STUDENTS: At the close of this course of instruction in the science of Phrenology it becomes a pleasant and agreeable task to express our grateful thanks for the work accomplished under the guidance of our worthy professors. The cost of our instruction is a very trifling consideration compared with our gain. When we consider the wonders achieved by the human mind, the question confronts us: What do we know of man? hence the wisdom of the aphorism "Man, know thyself."

As we have been looking out from within, trying

to solve the problem of man's destiny, the time has now come to look from without to the unknown within. Ignorance is our chief enemy. Friends, let us be honest in the pursuit of truth. At the door of doubt that sacred word is born, *truth*. We want a more earnest and zealous regard for the human race to aid it to grander heights of purity and nobility of life. Brethren, the field we are about to enter involves new duties of a more responsible bearing than we are accustomed to know; that is, the propagation of the science of Phrenology, and I hope we will all be faithful and equal to our trust in aiding men, women and children on earth; for a single utterance of ours may shape the whole action or course of a life, and we will stand credited or blamed for what we help to make man or society. As the alphabet of letters is the corner stone in the field of literature, so Phrenology is the foundation and corner stone of the sciences, for a knowledge of the human mind imparts to us its tendencies and enables us to determine our place and position in the labor of life, since "The proper study of mankind is man."

It becomes a labor of love and gratitude to speak of our immortal Gall and Spurzheim, who left a legacy to the world that shall endure with time. Though dead they still live with us and are of us. We sympathize with their struggles and rejoice in their triumphs.

A true knowledge of our beloved science will awaken in our minds a broader range of inquiry in the field of thought. In the family circle, in our business, in the school room, and in our courts of justice, our jurors, lawyers and judges will find it invaluable.

It has been also of great service in the treatment of the insane; in short, it can be made serviceable in every department of human life. The light I once sought I now behold, and it will make my life more happy and useful.

Dear classmates, our pleasant and sociable gatherings have made indelible imprints upon our memory that time can not efface.

ADDRESS BY MR. CLARK.

WORTHY INSTRUCTORS AND DEAR CLASSMATES OF THE INSTITUTE OF PHRENOLOGY: Man is endowed with ever unfolding faculties that constitute him an intelligence susceptible of endless improvement.

Through the science of Phrenology we perceive that the Creator has bestowed definite qualities on the human mind and on external objects, and established certain relations between them. It is the misunderstanding of the laws of nature that prevents him from attaining to perfection of stature and harmony of function. It is only as he abuses the laws of his nature that he suffers. It is our duty as Phrenologists to teach him how to make the most of his natural talent to enjoy the life he sometimes thinks is a burden.

Nowhere do we perceive the human mind instructed and its power exercised in a degree at all approaching to their capability. At the present moment no class of society is systematically instructed in the constitution of the mind and body, or the laws controlling and governing their action! When we consider the natural supremacy of the moral sentiments, and the principle that the activity of the faculties is the source of pleasure—that the higher the power the more intense the delight—that the moral and intellectual faculties

are the natural fountain of enjoyment, then all the more it will appear necessary that man should be instructed in the science of Phrenology, as this is the source through which he may be made to understand the laws of his nature.

Finally, let us consider that "the earth is the Lord's and the fullness thereof," and every man is our brother, and the greater the benefit we can bestow the greater the reward.

Let our motto be: Live, so that when the body dies our work shall be immortal.

RESOLUTIONS BY THE CLASS.

Having completed the course of instruction in the American Institute of Phrenology, the class of 1886, adopt the following resolutions:

1. That, as the study of mind in its various manifestation, is one of the most important subjects to which man can turn his attention, we recommend all who are earnestly seeking truth, to study Phrenology as the only science giving an accurate analysis of mental phenomena.

2. That we have found the American Institute of Phrenology an invaluable aid in the prosecution of study in all branches of anthropological research, and deem the advantages it offers to be unequalled.

3. That we tender our heart-felt thanks to our learned and experienced teachers who have faithfully labored in imparting to us this valuable knowledge.

J. F. TRACY, New York,
JAMES R. STERLING, Canada,
HENRY V. HANAN, Kansas,
Com. on Resolutions.

Richard J. Barrett, California.
Wm. Brimble-Combe, Australia.
Harry K. Cassel, Pennsylvania.
Perry Clark, California,
A. J. Corfman, M. D., Ohio.
V. P. English, Lawyer, Ohio.
Henry V. Hanan, Kansas.
Herbert H. Hull, Pennsylvania.
Frank Humble, Ohio.
Amos E. Kunderd, Indiana.
John E. Kramer, New York.
Wm. A. Lomison, Pennsylvania.
Benj. F. Loomis, California.
Hiel F. Orviss, Wisconsin.
Lefferts M. Powell, M. D., New York.
Geo. W. Rhone, Pennsylvania.
Jas. R. Sterling, Canada,
Jas. I. Taylor, Pennsylvania.
John F. Tracy, New York.
John P. Wild, Massachusetts.

LIST OF GRADUATES TO 1886.

We are often written to by persons in distant States to ascertain if "Prof.——" is a graduate of the American Institute of Phrenology. Some persons whom we never before heard of have professed to be graduates of the Institute, and even publish it on their circulars, endeavoring thus to secure consideration. The

following list embraces the names of all the graduates up to and including the year 1886. All our students have a diploma, and it would be safe to ask to see the diploma of those who claim to be the graduates, or write us for a class circular.

	STATE.	CLASS OF		STATE.	CLASS OF
Abel, Miss Loretta.....	New York.....	1877	Dornbach, H. F. A.....	Valparaiso, S. A.....	1885
Adams, Elijah M.....	Missouri	1875	Downey, Rev. T. Jefferson*	Ohio.....	1867
Adams, Miss F. R.....	Iowa.....	1883	Duncan, J. Ransom.....	Texas.....	1875
Alderson, Matt. W.....	Montana...1875, 1879, 1880		Du Bois, D. C.....	Iowa.....	1877
Alexander, Arthur J.....	Indiana.....	1871	Drury, Andrew A.....	Massachusetts.....	1882
Alexander, W. G.....	Canada.....	1884	Eadie, Andrew B.....	Canada.....	1877
Alger, Frank George.....	New Hampshire.....	1880	Earley, John.....	Ireland.....	1885
Anderson, Alex. H.....	Canada.....	1884	Ebersole, John P.....	Ohio.....	1885
Anderson, Samuel H.....	Pennsylvania.....	1867	Eckhardt, P.....	Illinois.....	1884
Arnold, Chas. H.....	Massachusetts.....	1870	Emerick, Lycurgus.....	Illinois.....	1876
Arthur, Willie P.....	New York.....	1874	English, V. P., Lawyer.....	Ohio.....	1886
Aspinwall, F. E.....	New York.....1872, 1873		Espy, John Boyd.....	Pennsylvania.....	1875
Austin, Eugene W.....	New York.....	1878	Evans, Henry W.....	Pennsylvania.....	1867
Austin, Fred. H.....	Pennsylvania.....	1882	Fairbanks, C. B*.....	New York.....	1872
Ayer, Sewell P.....	Maine.....	1868	Fairfield, John C.....	Pennsylvania.....	1876
Barrett, Richard J.....	California.....	1886	Fariss, F. A.....	Virginia.....	1885
Bateinan, Luther C.....	Maine.....	1870	Ferry, A. L.....	Illinois.....1881, 1884	
Ballou, Perry E.....	New York.....	1872	Field, J. H.....	Colorado.....	1866
Bacon, David F.....	New Hampshire.....	1875	Fleisch, Jacob.....	Ohio.....	1870
Baker, Wm. F.....	Tennessee.....	1876	Foster, Felix J.....	Mississippi.....	1870
Baillie, James L.....	Ohio.....	1881	Foster, Henry Ellis.....	Tennessee.....	1879
Bartholomew, Henry S.....	Indiana.....	1885	Fowler, Miss Nellie.....	New Jersey.....	1884
Batthey, O. F.....	Massachusetts.....	1883	Fraser, J. A. G.....	Canada.....1877, 1882	
Beecher, Eugene.....	Connecticut.....	1870	Freeman, Chas. E.....	Iowa.....	1880
Beverly, C. A., M.D.....	Illinois.....	1872	Friedrich, Martin.....	Pennsylvania.....	1882
Beall, Edgar C.....	Ohio.....	1878	Fitzgerald, Nat. Ward.....	Washington, D. C.....	1885
Beer, John.....	New York.....	1878	Gaumer, Levi.....	Iowa.....	1876
Bently, Harriet W*.....	Connecticut.....	1880	Gause, Mrs. Elva P.....	North Carolina.....	1875
Bell, James.....	New Hampshire.....	1881	Gibbs, H. Clarence.....	Wisconsin.....	1874
Bonine, Elias A.....	Pennsylvania.....	1868	Giles, J. C.....	Texas.....	1885
Brown, D. L.....	Iowa.....	1872	Gillis, Benjamin.....	Missouri.....	1875
Bronham, Elisha C.....	Illinois.....	1875	Gluckler, Ralph J.....	New York.....	1882
Bousson, Miss O. M. T.....	New York.....1877, 1882		Goodrich, Geo. D.....	Minnesota.....	1877
Brettel, Montague.....	Ohio.....	1875	Granberry, Prentiss S.....	Mississippi.....	1873
Brethour, E. J.....	Canada.....	1884	Green, William R.....	Pennsylvania.....	1874
Brimble-Combe, Wm.....	Australia.....	1886	Greear, Rev. Samuel J.....	Illinois.....	1875
Brownson, Rev. A. J.....	Indiana.....	1884	Grob, Samuel.....	Pennsylvania.....1881, 1882	
Bullard, J. H.....	New York.....	1866	Grumman, William E.....	Connecticut.....	1885
Buck, Marion F.....	New York.....	1868	Guilford, Ira L.....	Michigan.....	1866
Burnham, A. B.....	Wisconsin.....	1881	Haley, William T.....	California.....	1872
Burr, Rev. W. K., M.A. Ph.D.....	Canada.....	1884	Haller, John S.....	Pennsylvania.....	1868
Candee, E. E.....	N. Y., 1873, 1875, 1878, 1880		Hambleton, Harland E.....	Ohio.....	1875
Cady, Charles Everett.....	New York.....	1885	Hamilton, Elliott A.....	Michigan.....	1867
Campbell, H. D*.....	New York.....	1874	Hanan, Henry V.....	Kansas.....	1889
Carman, Lewis.....	New York.....	1883	Hardy, John N.....	Wisconsin.....	1870
Cassel, Harry K.....	Pennsylvania.....	1886	Harriman, O. B., M.D.....	Iowa.....	1876
Catlin, David C.....	Connecticut.....	1877	Hsie, George E., Lawyer.....	Mississippi.....	1879
Centebear, J. S.....	New York.....	1884	Haskell, Charles L.....	Massachusetts.....	1885
Chester, Arthur.....	New York.....	1870	Hathaway, D. E.....	Massachusetts.....	1874
Chesley, Egbert M.....	Nova Scotia.....	1872	Hawkins, William S.....	Connecticut.....	1866
Chandler, G. E., M.D.....	Ohio.....	1873	Haley, Edwin N.....	Ohio.....	1876
Charles, G.....	Canada.....	1876	Henderson, Francis M.....	Illinois.....	1867
Chapman, May.....	Massachusetts.....	1879	Henderson, James.....	New York.....	1872
Clark, Perry.....	California.....	1886	Herrick, Miss M. E.....	Massachusetts.....	1864
Clark, Thomas*.....	New Jersey.....	1874	Hilleary, Louis N., M.D.....	Iowa.....	1877
Clarke, Rev. Jas. Eugene.....	Maine.....	1877	Hiser, E. W.....	Indiana.....	1878
Collins, John.....	Wisconsin.....	1878	Hobson, A. Norman.....	Iowa.....	1869
Condit, Hilyer.....	New Jersey.....	1867	Hoffman, Uriah J.....	Indiana.....	1874
Constantine, Rev. A. A.....	New Jersey.....	1875	Holm, J. S.....	Iowa.....	1874
Constantine, Miss Eliza.....	New Jersey,....1875, 1884		Holt, Chas.....	New York.....	1875
Cook, J. R.....	Ohio.....	1872	Holt, Miss Mirian J.....	Texas.....	1876
Corfman, A. J., M.D.....	Ohio.....	1886	Horne, William.....	Michigan.....	1874
Cowan, John, M.D.....	New York.....	1870	Howard, Paul.....	England.....	1865
Cray, Edward A.....	Rhode Island.....	1885	Hummel, Levi.....	Pennsylvania.....	1876
Creamer, Edward S.....	New York.....	1866	Humphrey, John C.....	Alabama.....	1868
Crum, Rev. Amos.....	Illinois.....	1870	Humble, Frank.....	Pennsylvania.....	1866
Curren, Orville.....	Michigan.....	1873	Hughes, Henry F.....	New York.....	1870
Curren, Thomas.....	Michigan.....	1873	Huggins, L. E.....	Ohio.....	1887
Curren, H. W.....	Michigan.....	1874	Hull, Herbert H.....	Pennsylvania.....	1876
Daly, Oliver Perry.....	Iowa.....	1868	Irving, Mrs. P. W.....	Connecticut.....	1884
Danter, James F. M. D.....	Canada.....	1870	Irvin, Rev. Robt. J.....	Canada.....	1885
Darling, Edgar A.....	New York.....	1885	Jackson, John P.....	England.....	1867
Davidson, E. A.....	New York.....1883, 1885		Janison, John A., jr.....	New York.....	1884
Davis, Edgar. E.....	Iowa.....	1885	January, Charles P.....	Iowa.....	1879
Davis, Wallace.....	Pennsylvania.....	1875	Jennings, Alfred.....	Massachusetts.....	1872
Detwiler, D. W.....	Pennsylvania.....	1880	Johnson, J. C.....	Massachusetts.....	1884
Dill, Rev. A. Cushing.....	New Jersey.....	1883	Jones, Isaac S.....	New Jersey.....	1868
Diehm, Joseph.....	Kansas.....	1885	Jones, John W.....	Indiana.....	1868
Dodge, Lovell.....	Pennsylvania.....	1867	Keith, A. B.....	Iowa.....	1877
Dodds, Rev. David, M.D.....	Iowa.....	1877	Kimmons, James M.....	Kansas.....1884, 1885	
Doolittell, Orrin.....	New York.....	1885	Kindig, David S.....	Ohio.....	1877

* Deceased.

	STATE.	CLASS OF		STATE.	CLASS OF
King, David M.	Ohio	1868	Ream, Elmer	Indiana	1885
King, George L.	Ohio	1884	Reed, Anson A.	Connecticut	1868
Kirkpatrick, Robert	Montana	1879	Rhone, Geo. W.	Pennsylvania	1886
Kirven, P. E.	Louisiana	1831, 1882	Richardson, M. T.	New York	1870
Knowles, Frank B.*	New York	1833	Richards, William	Pennsylvania	1873
Kramer, John E.	New York	1883	Richie, Porter D.	Illinois	1872
Kunderd, Amos E.	Indiana	1883	Robbins, T. L.	Massachusetts	1872
Lane, Rev. John C*	Missouri	1869	Roberts, I. L.	Florida	1872
Langley, M. L.	Arkansas	1873	Roberts, Jas. Thos.	California	1882
La Rue, Franklin	Montana	1832	Roberts, Margaret E.	Pennsylvania	1882
Laur, Rev. J. D.	Ohio	1874	Robinson, Frank O.	Tennessee	1885
Lawrence, Alva, jr.*	New York	1873	Robinson, G. M.	Illinois	1882
Leavitt, Levi R.	New Hampshire	1870	Roeseler, John S.	Wisconsin	1884
Leininger, John Wesley	Canada	1833	Rogers, Ralph	Tennessee	1875
Lemon, J.	New York	1884	Romie, Paul T.	California	1877
Leonard, B. A.	Massachusetts	1830	Rosenbaum, Fred. Wm.	Ohio	1878
Lee, Rev. Geo. A.	Pennsylvania	1872	Sadler, David M.	Maryland	1879
Lester, D. C.	Pennsylvania	1873	Sage, Enos A.	New Jersey	1868
Linvil, C. H.	Pennsylvania	1879	Sahlin, Mrs. M. A.	New York	1884
Lischer, M. E.	New York	1883	Sanches, Mrs. Marie	Sweden	1880
Lockard, E. M.	Pennsylvania	1833, 1884	Sargent, C. E.	New Hampshire	1874
Loomis, Benj. F.	California	1836	Scheaffer, J. S.	Iowa	1884
Lomis, Wm. A.	Pennsylvania	1836	Scott, Martha A.	Colorado	1881
Macduff, Rev. R. E.	Kentucky	1872	Scott, Rev. William R.	Illinois	1883
Mack, H. Q.	New York	1867	Senior, F. D.	New York	1872
Mackenzie, J. H.	Minnesota	1873	Seybold, Frederick J.	Illinois	1870
Macrea, Miss Flora	Australia	1884	Shamberger, Daniel	Virginia	1885
McCoy, Jason B.	Ohio	1885	Shultz, R. C., M.D.	Iowa	1876
McDonald, Duncan	Michigan	1837, 1882	Sievert, Miss Sophie	New York	1880
McIntosh, James	Ohio	1867	Smith, Bartholomew	Rhode Island	1869
McDavid, J. Q.	South Carolina	1874	Smith, Lundy B.	Missouri	1874
McNeil, James	New York	1873	Smith, Thomas William	Canada	1876
McCrea, James	Illinois	1873	Snell, C. L.	Pennsylvania	1873
McLaughlin	Canada	1882	Sommers, Jervis	Connecticut	1869
McKee, William C.	Ohio	1879	Spring, Geo. A.	New York	1882
Mann, H. jr.	Vermont	1883	Staples, Ernest L.	Connecticut	1877
Martin, Edward E.	New York	1885	Sterling, Jas. R.	Canada	1884, 1886
Matley, John	California	1870	Stewart, Rollin	Vermont	1867
Matlack, A. S.	Ohio	1872	Stockton, Miss Alice	Illinois	1874
Mason, James	Massachusetts	1880	Stone, W. T.	Indiana	1837
Mason, Lott, M.D.	Illinois	1869	Strong, J. Wilmer	Pennsylvania	1866
Mason, A. Wallace	Canada	1874	Suares, Adolph B.	New York	1876
Manners, J. H.*	New Zealand	1877	Sullivan, John B.	New York	1880
Mannion, Frank	Iowa	1879	Swain, Henry E.	New York	1870
Merrifield, John C.	Canada	1868	Swift, Miss Edna A.	Connecticut	1873
Meller, Frank J.	Illinois	1881	Taggart, Chas. Alvan	Massachusetts	1880
Memminger, Thos. F.	West Virginia	1881	Taylor, Jas. I.	Pennsylvania	1886
Miller, E. P., M.D.	New York	1867	Thackston, T. B.	South Carolina	1885
Mills, Joseph	Ohio	1868	Thomas, J. W.	Missouri	1879
Mills, Rev. J. S.	Ohio	1872	Thompson, Benj.	Iowa	1867
Miller, B. Frank	California	1882	Thompson, D. D.	Canada	1873
Moatz, Lewis	Ohio	1869	Thompson, J. H.	Pennsylvania	1866
Moran, Maggie L.	New Jersey	1885	Thompson, Miss M. B.	Ohio	1876
Morrison, Edward J.	Illinois	1868	Thurston, Calvin H.	Indiana	1869
Moore, Joseph H.	North Carolina	1877	Tower, Henry M.	Massachusetts	1881
Morris, George	Canada	1878, 1884	Tracy, John F.	New York	1886
Mully, A. E. F.	New York	1882	Turner, P.	Illinois	1872
Musgrove, William	England	1875	Turner, Thomas	New York	1878
Newman, A. A.	Illinois	1867	Wahl, Albert	Illinois	1879
Oestergard, J. C.	Denmark	1883	Waide, Robert	Indiana	1882
Oliver, Dr. F. W.	Iowa	1875	Wait, A. H.	Kansas	1883
Olney, Henry J.	Michigan	1885	Wallace, A. D.	Tennessee	1877
Orviss, Hiel F.	Wisconsin	1886	Walters, Eli	Ohio	1874
Osgood, Rev. Joel	Ohio	1880	Waterman, L. E.	New York	1870
Parker, R. G.	Missouri	1874	Watson, Chas. S.	New Hampshire	1869
Parker, Howell B.	Georgia	1875, 1880, 1885	Welles, R. W.	Connecticut	1879
Patten, Edward M.	Illinois	1874	West, Mrs. Mary A.	New York	1870
Patten, William Perry	Nebraska	1876	Whitaker, John	New York	1869
Patterson, John A.	Missouri	1872	Whyte, Fred. M.	New York	1884
Paulsen, John H.	Louisiana	1877	Wightman, Chas. S.	Rhode Island	1872
Pentney, John	Canada	1877	Wiest, Ezra	Pennsylvania	1875
Peirsoll, Sampson H.	West Virginia	1870	Wild, John P.	Massachusetts	1885, 1886
Perrin, Edward M.*	Kansas	1869	Wildman, Wellington E.	Ohio	1876
Perry, A. D.	Massachusetts	1883	Wildman, Mrs. W. E.	Ohio	1876
Petry, Daniel F.	New York	1836	Winkler, Henry	Indiana	1877
Philbrick, S. F.	Ohio	1873, 1874	Wood, Oscar D.	New Jersey	1875
Pierce, David F.	Connecticut	1868	Wood, Elbert B.	Kentucky	1879
Powell, Lefferts M., M.D.	New York	1886	Worrall, M. B.	Ohio	1877
Pratt, Benj. F., M.D.	Ohio	1875	Wyscarver, T. J.	Ohio	1874
Prather, Miss M. O.	Kansas	1876	Young, C. P. E.	Sweden	1883
Price, David R.	Iowa	1868	Young, Henry	Ohio	1875
Purcell, E. M.	Iowa	1874			

* Deceased.

CHARTER.

An Act to incorporate "THE AMERICAN INSTITUTE OF PHRENOLOGY," Passed

April 20, 1866.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Amos Dean, Esq., Horace Greely, Samuel Osgood, D.D., A. Oakey Hall, Esq., Russell T. Trall, M. D., Henry Dexter, Samuel R. Wells, Edward P. Fowler, M. D., Nelson Sizer, Lester A. Roberts and their associates, are hereby constituted a body corporate by the name of "THE AMERICAN INSTITUTE OF PHRENOLOGY," for the purpose of promoting instruction in all departments of learning connected therewith, and for collecting and preserving Crania, Casts, Busts and other representations of the different Races, Tribes and Families of men.

Section 2. The said corporation may hold real estate and personal estate to the amount of one hundred thousand dollars, and the funds and properties thereof shall not be used for any other purposes than those declared in the first section of this Act.

Section 3. The said Henry Dexter, Samuel R. Wells, Edward P. Fowler, M. D., Nelson Sizer, and Lester A. Roberts are hereby appointed Trustees of said incorporation, with power to fill vacancies in the Board. No less than three Trustees shall constitute a quorum for the transaction of business.

Section 4. It shall be lawful for the Board of Trustees to appoint Lecturers and such other instructors as they may deem necessary and advisable, subject to removal when found expedient and necessary, by a vote of two-thirds of the members constituting said Board; but no such appointment shall be made until the applicant shall have passed a personal examination before the Board.

Section 5. The Society shall keep for free public exhibition at all proper times, such collections of Skulls, Busts, Casts, Paintings and other things connected therewith, as they may obtain. They shall give, by a competent person or persons, a course of not less than six free lectures in each and every year, and shall have annually a class for instruction in Practical Phrenology, to which shall be admitted gratuitously at least one student from each Public School in the City of New York.

Section 6. The corporation shall possess the powers and be subject to the provisions of Chapter 18, of part 1, of the Revised Statutes, so far as applicable.

Section 7. This Act shall take effect immediately.

THE FACULTY OF INSTRUCTION.

Among those who have been engaged as lecturers in connection with the Institute for many years, we may mention the following:

Nelson Sizer, the chief Examiner in the office of Fowler & Wells for thirty-eight years, lectures on the Theory and Practice of Phrenology and Physiognomy.

H. S. Drayton, A. M., editor of THE PHRENOLOGICAL JOURNAL, treats of Mental Science and its relations to Physiology and Metaphysics.

Mrs. Charlotte Fowler Wells lectures on the History and Progress of Phrenology in America.

Nelson B. Sizer, M. D., Anatomy, Physiology and Diseases of Body and Brain.

John Ordronaux, M. D., LL. D., late State Commissioner of Lunacy, lectures on Insanity and Jurisprudence,

Robert A. Gunn, M. D., Magnetism and Psychology.

—Elocution and Vocal Culture in relation to Public Speaking.

ADVICE FOR STUDENTS

In coming to New York you should purchase a through ticket if possible, and if you have a trunk or valise which you do not need on the way, get it checked, and thus save care.

Students should prepare the means for payment of tuition and their necessary expenses during their stay in New York, before they come. Those who can do it should bring their funds in drafts, then they are not subject to the danger of losing their money on the way. Those who bring money can have it deposited in bank while here, thus preventing the possibility of loss.

We advise students, after buying their passage tickets, to have only so much money within reach as will pay their current expenses on the way here. The balance, if not in form of draft, should be sewed into a pocket in the undergarment. Nor should students inform strangers who they are, where they came from, where they are going, or their business in New York. For in all large cities there are always men on the look-out for strangers whose business it is to employ some cunning device to rob them.

On landing at Jersey City from the West or South, retain your baggage check—pay no attention to agents on the train—and come to our office, 753 Broadway, corner Eighth Street. If you come into the city in the night, go to the Sinclair House, Broadway, corner of Eighth Street, directly opposite our office.

ROOMS AND BOARD.

Boarding can always be obtained near the Institute at moderate prices. From four to five dollars a week usually cover the expense. Sometimes hygienic students club together and take rooms, and procure their own food to suit themselves.

We take special pains to aid students to find desirable quarters, and to facilitate any purchases which they may wish to make, or give them directions as to places of interest to be visited, and the proper way to make their stay in the city safe, pleasant and instructive.

AMERICAN INSTITUTE OF PHRENOLOGY.

The Session of 1887 will open on the **FIRST TUESDAY OF SEPTEMBER.**
There is but **ONE SESSION** during the year.

This is the only Institution of the kind in the world where a course of thorough and practical instruction in Phrenology is given, and nowhere else can be found such facilities as are possessed by the American Institute of Phrenology, consisting of a large cabinet of skulls—human and animal—with busts, casts, portraits, anatomical preparations, skeletons, plates, models, etc.

THE COURSE OF INSTRUCTION.

This consists of more than one hundred lectures and lessons covering a term of **Six Weeks**—one lesson being given each morning and two during the afternoon.

TOPICS.

I. GENERAL PRINCIPLES.

The philosophy of the organic constitution, its relation to mind, character, and motive; mental philosophy, or the efforts of the best thinkers in all ages to find out the laws and operations of the mind and give their speculations the form of science.

II. TEMPERAMENT,

as indicating quality and giving tone and peculiarity to mental manifestation, also as affecting the choice of occupation; the law of harmony and heredity as connected with the marriage relation; what constitutes a proper combination of temperaments with reference to health, long life, tendency to talent, virtue and vice.

III. PHRENOLOGY.

Mental development explained; the true mode of estimating character according to Phrenological principles; Comparative Phrenology, the development and peculiarities of the animal kingdom, hints toward their gradation in the scale of being from the lowest to the highest; the facial angle, embodying curious and interesting facts relative to the qualities and habits of animals, tending to show that disposition is according to organization; instinct and reason: the Phrenology of crime; imbecility and idiocy, causes and management; the elements of force, energy, industry, perseverance; the governing and aspiring groups; the division between the intellectual, spiritual, and animal regions of the brain, and how to ascertain this in the living head; the memory, how to develop and improve it; the reasoning faculties and the part they play in civilization; location of the organs of the brain, how to estimate their size, absolute and relative.

IV. PHYSIOGNOMY.

The relations between the brain and the face, and between one part of the system and another as indicating character, talent, and peculiarities, voice, walk, expression, etc.

V. History of Phrenology in America and Europe,

and the struggles and sacrifices of its pioneers in disseminating its principles, especially in this country; and its enriching influence on education, literature, domestic life, government, morality and religion.

VI. ETHNOLOGY.

The races and tribes of men, their peculiarities, and how to judge of nativity of race; especially how to detect infallibly the skulls of the several colored races.

VII. DISSECTION

and demonstration of the human brain; microscopic illustrations of different parts of the system in health and disease.

VIII. Anatomy and Physiology.

The brain and nervous system; the bones and muscles; how to maintain bodily vigor and the proper support of the brain; reciprocal influence of brain and body; respiration; circulation; digestion; growth and decay of the body; exercise; sunlight; sleep.

IX. Objections to Phrenology,

whether anatomical, physiological, practical or religious, will be considered; how the skull enlarges to give room for the growing brain; the frontal sinus; loss or injury of the brain; thickness of the skull; fatalism, materialism, moral responsibility, etc.

X. Phrenology and Religion.

The moral bearings of Phrenology, and a correct physiology; its relation to religion; home training of the young as applied to education and virtue.

XI. CHOICE OF OCCUPATIONS

Special attention will be given to this branch of the subject; what organizations are adapted to the different professions and pursuits, and how to put "the right man in the right place."

XII. Phrenology and Marriage.

The right relation of the sexes: what mental and temperamental qualities are adapted to a happy union and a healthy offspring, and why.

XIII. Natural Language of the Faculties.

The attitudes, motions, carriage of the head, style of speech growing out of the activity of the different organs, and how to read character thereby.

XIV. EXAMINATIONS

of heads explained: practical experiments; heads examined by each of the students, who will be thoroughly trained and instructed how to make examinations private and publicly; especially training in the examination of skulls.

XV. HYGIENE.

How to take care of the body as to dress, rest, recreation, food diet, right and wrong habits; what food is best for persons of different temperaments and pursuits; what food tends to make one fat or lean; what feeds brain and muscle; stimulants, their nature and abuse, what to avoid, and why.

XVI. PSYCHOLOGY.

Under this head, mesmerism and clairvoyance will be explained, and the laws discussed on which they are supposed to depend.

XVII. HEREDITY.

The law of inheritance in general and in particular; resemblance to parents, how to determine which parent a person resembles; what features of face, what classes of facul-

ties or portions of the general build are inherited from the father or from the mother.

XVIII. INSANITY,

its laws and peculiarities; the faculties in which different persons are most likely to be insane, and how to detect it in a person.

XIX. IDIOCY.

its causes and how to avoid them; its peculiarities and how to understand them; how to detect it where the head is well-formed.

XX. ELOCUTION.

How to cultivate the voice; eloquence, how to attain the art; careful instruction in reading and speaking with a view to success in the lecture-field.

XXI. HOW TO LECTURE.

The best methods of presenting Phrenology and Physiology to the public; how to obtain audiences and how to hold and instruct them; general business management in connection with the lecture-field.

XXII. Review and Examination.

Questions on all points relating to the subject, which may be proposed by the students answered; in turn, students will be examined on the topics taught who will give in their own words their knowledge of the subject.

XXIII. How to Apply Phrenology practically in reading character by the combinations of faculties, and how to assign to each person the true field of effort in education, business, social adaptation, and, in short, how to make life a success and its opportunities the means of happiness.

Finally, it is the aim of the instructors to transfer to students, so far as it is possible, all the knowledge of Anthropology which a long experience in the practice of their profession has enabled them to acquire—in a word, to qualify students to take their places in this man-improving field of usefulness.

TEXT-BOOKS.—Among the works most useful to be studied by those who wish to master Phrenology, we recommend the following "STUDENTS SET," which will be sent by express for \$10, when all are ordered at one time:

Brain and Mind: a Text-Book.	By Drayton & McNiell	-	\$1 50
Forty Years in Phrenology.	By Nelson Sizer. Illustrated	-	1 50
How to Read Character.	By S. R. Wells. Illustrated	-	1 25
Constitution of Man.	By George Combe	- - -	1 25
New Physiognomy.	By S. R. Wells. 1,000 Illustrations	-	5 00
Choice of Pursuits.	By Nelson Sizer. Illustrated	- - -	1 75
Popular Physiology.	By R. T. Trall, M. D.	- - -	1 00
Phrenological Bust.	By Fowler & Wells	- - -	1 00

N. B.—If a person already has one or more of the above books, he may order, in place of it, any other work of our publication of equal price.

TERMS.—The cost of tuition for the full course, including diploma, for ladies and gentlemen, is reduced to \$50. Incidental expenses in New York, including board, need not cost more than \$35. We aid students in getting good places to board.

It is desirable that all who intend to be students should send in their names at an early day. For additional information address, FOWLER & WELLS Co., 753 Broadway, N. Y..

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of
FOWLER & WELLS CO.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.15 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Express Money Orders, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. The larger stamps are preferred, they should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made by giving the old as well as the new address, but not without this information. Notice should be received the first of the preceding month.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted, for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers.

753 Broadway, New York.

Our New Rule.—For several years we have been offering premiums to subscribers to the PHRENOLOGICAL JOURNAL, whether new or old, alike. Of course our object in offering premiums is to increase our subscription list, and it has been decided that a change of plan will be better; therefore, our new rule will be as follows: To new yearly subscribers only, we will offer either the bust or chart premium, and to old subscribers who send us one new name with their own, we will give either of the book premiums offered on another page. In order to be entitled to one of the book premiums, the name sent must be that of a new subscriber, and the person sending it must be a subscriber to the JOURNAL. The premiums offered to new subscribers are the most attractive that could be presented, while the offers we make to persons sending new names are very liberal, and include a selection from many choice volumes. We are confident this plan will meet the approval of our friends, and we invite their co-operation in extending the circulation of the JOURNAL. For each new name sent by an old subscriber, we will give one of the books. In this way quite an addition can be made to one's library without expense. The price of the JOURNAL will remain the same, \$2.15 with the premium.

Our New Calendar for 1887.—We have issued for 1886 one of the most attractive Calendars ever published. It consists of our new Phrenological Chart reduced one half in size printed in beautiful lithographic colors on fine card board, cut out to the shape of the head, with a Calendar for each month of the year and an explanation of the faculties, etc. As a wall or mantel ornament, it will prove very attractive, as well as useful. Will be sent by mail for 10 cents.

The American Kindergarten and Primary Teacher for February, 1887, has a cover of artistic design and color. The home, kindergarten and primary school are represented and fifteen little faces peep out in various poses. The leader will interest many readers, as it is a straight hit at the unjust old saw about the wickedness of the parson's children. Another of the series of papers on the child artist is entertaining as well as instructive. "Teaching the uses of money" gives sensible advice. The kindergarten department continues study of form. In mothers in council, "Harsh words" leads with stirring eloquence. How some little people were led out of extreme bashfulness will doubtless call out the experience of other mothers. The teachers are flocking to the council room of this magazine, several new names appearing with articles of merit. Punishment and Influence are considered, and "Artful Jane" is on hand with the result of some of her ingenious devices for waking up little minds. The editorials are brief and touch on several timely matters. The reception of the AMERICAN KINDERGARTEN under its new management must be gratifying to the publishers, or they would not have gone to the expense of the new cover and the enlargement of the CHILDREN'S SUPPLEMENT to sixteen pages. In the entire range of books for children there is nothing quite like this. Natural history is treated of systematically and scientifically, yet within the comprehension of a six-year-old, KINDERGARTEN work is illustrated. Skeleton stories tempt young composers to try their skill. The publishers have been so fortunate as to secure the services of Prof. Charles K. Howlett, the ornithologist, taxidermist and lecturer, who will contribute articles on birds, beginning with this number. The KINDERGARTEN would be cheap at double the price asked for it, which is only \$1.00 a year or 10 cents a number. Fowler & Wells Co., publishers, 753 Broadway, N. Y.

Library of Human Nature.—The publication of the first number of this has been somewhat delayed, but it is now well under way and it will be sent to all subscribers as soon as ready. As stated in the previous announcement it is devoted to the subject of Self-Esteem or Self-Reliance, as an element of character and its uses and abuses. It will correct many wrong impressions on the subject, and it will be seen that Self-Esteem is a quality to be desired as well as guarded against. The subject is discussed by Prof. Sizer in all its bearings and should be read by all who would make the most of themselves, by parents and teachers and by all who have to deal with others. It will help you to understand your own character and that of others. The Library of Human Nature will be published quarterly at 10 cents a number or 30 cents a year, to JOURNAL subscribers at 25 cents a year.

Peeled Wheat Crackers.—We wish to recommend our readers who have not done so to try the Health Food Co.'s best Peeled Wheat Crackers.

Clubbing for 1887.—For the accommodation of our readers and friends we have made arrangements for the combining of other publications with our popular and useful magazine as follows: The subscription price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00; and any of the following may be included at the prices given.

Names sent for the JOURNAL with either of these will count on Premium List, and to Agents the same as though sent singly.

Eclectic Magazine..	4 25	Observer, new sub..	\$2 25
Atlantic Monthly...	3 40	The Beacon.....	1 60
Lippincott's Mag....	2 50	Phonetic Journal...	1 35
Harper's Monthly...	3 10	The Pansy.....	85
" Weekly...	3 25	Baby Land.....	45
" Bazar....	3 35	Peterson's Mag....	1 60
" Young People	1 70	North Am. Review..	4 20
The Century Mag...	3 60	Tribune, Weekly...	1 10
St. Nicholas.....	2 70	" Semi- "....	2 25
Popular Sci. Mon...	4 20	Times, Weekly.....	90
Godey's Lady's Book	1 70	Sun, ".....	90
Arthur's Home Mag.	1 60	World, " & Prem	90
Rural New Yorker..	1 85	Country Gentleman	2 15
Scribner's Magazine	2 75	Herald, Weekly....	90
Cosmopolitan.....	2 50	Prairie Farmer....	1 10
Demorest's Mag....	1 60	Illus. Chris'n Wkly.	2 20
Home Journal.....	1 60	Weekly Witness....	90
Am. Agriculturist..	1 10	Poultry World.....	90
Wide Awake.....	2 10	Gardeners' Monthly	1 50
Our Little Men and		Herald of Health...	80
Women.....	85	N. E. Jour. Educa..	2 15
Our Little Ones....	1 25	The School Journal.	2 00
Critic.....	2 50	Pop. Educator.....	1 75
Brooklyn Magazine.	60	Christian Union....	2 60
The Independent...	60	Christian at Work.	2 60
Am. Kindergarten..	75	Laws of Life.....	1 35
Cassell's Fam. Mag.	1 25	Cincinnati Graphic.	3 50
Baby Hood.....	1 10	Good House-keeping	2 10

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The Man Wonderful in the House Beautiful.—This is the best text-book for teachers on the subject of instruction in Physiology and Hygiene ever prepared. It is in the form of an allegory, in which the body is personified as the "House Beautiful," and its inhabitant as the "Man Wonderful." It reads like a story, is full of interest, and fascinating both to the instructor and pupil. Hundreds of teachers are now using it as the basis for oral work in the class-room, and it is their universal testimony that it is the best source of illustration which they have ever found. It is especially interesting in the manner in which it considers the effects of alcohol and stimulants on the system. The authors, Dr. C. B. and Mary A. Allen—husband and wife—have been teachers, and know what will aid both teacher and scholar. The work is also adapted for use as a class text-book and is being used for that purpose in many of the best private schools of the country. Price, \$1.50.

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How to Teach According to the Temperament and Mental Development.—This is a work by Prof. Sizer on the practical application of Phrenology in the school-room and family. It will enable teachers to overcome one of the greatest difficulties in the training of children by showing them how to understand the differences which arise from their temperament and constitution. It points out how to make the most of each. The *New England Journal of Education* in speaking of this work, says: "The author shows how those of different temperaments should be trained by different methods. This opens a new field to the consideration of the teacher, and will prove of great advantage to those who aim to secure the best results in their work. The text is attractive in style, and the illustrations, drawn from an experience of thirty years, make the work a valuable contribution to the educational literature of the times. It should find its way into the library of every parent and teacher."

Popular Physiology.—This is a scientific but familiar exposition of the structures, functions and relations of the human system and their application to the preservation of health. This is an especially technical work, based on the very best authority, and written from a hygienic standpoint. It is adapted for school or private use. Price, \$1.

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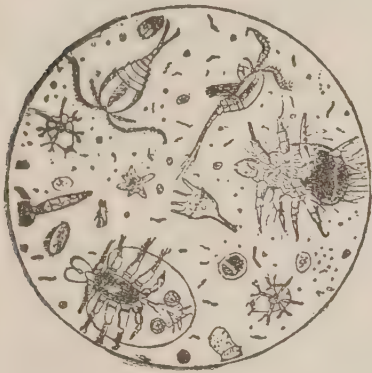
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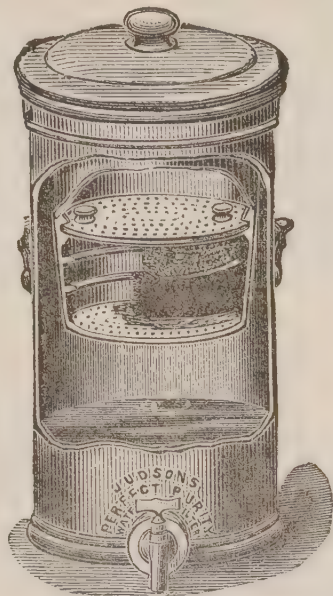
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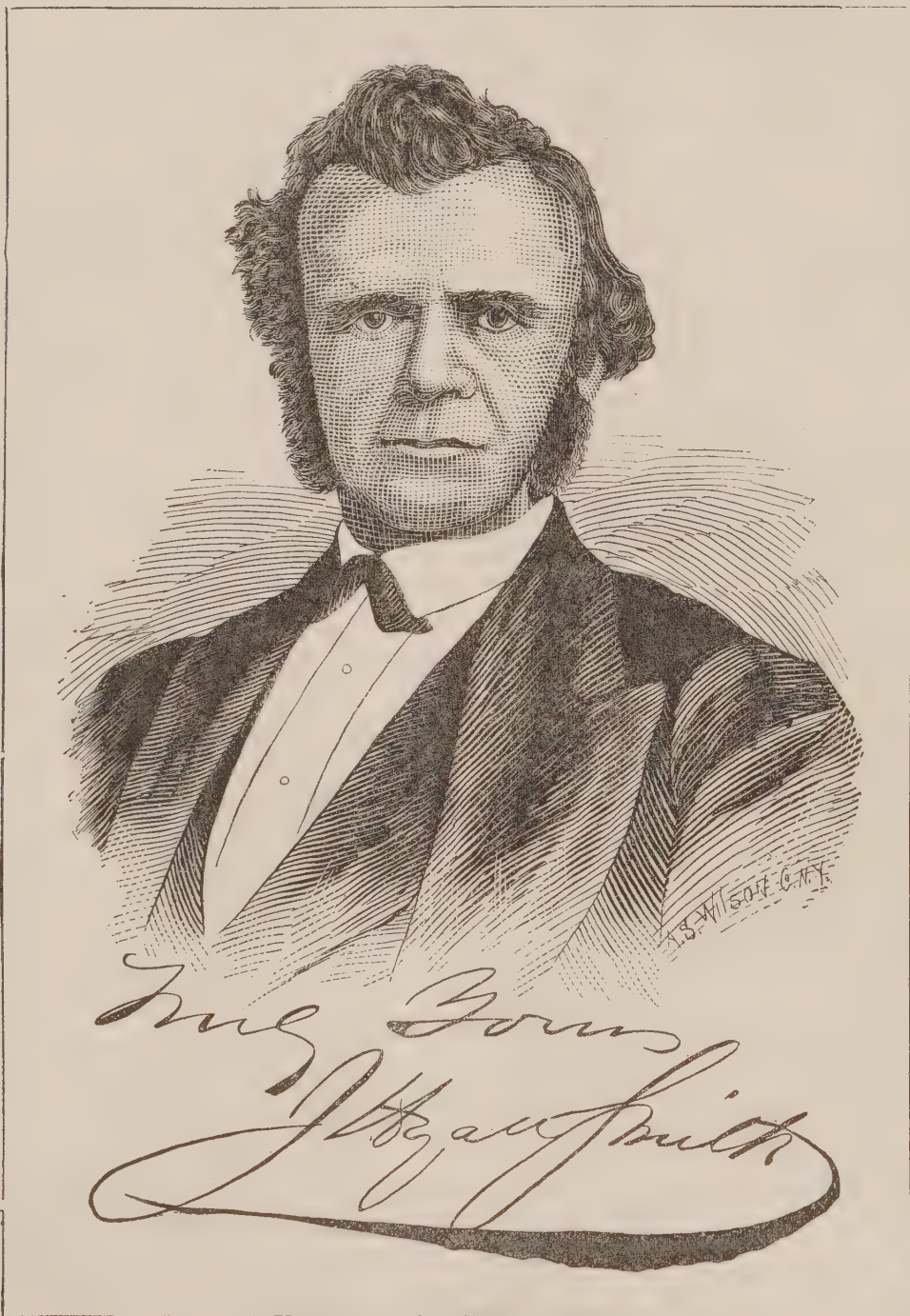
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[WHOLE No. 580.]



REV. J. HYATT SMITH.

THE late Rev. J. Hyatt Smith, ex- liant, witty and companionable man.
Congressman, lecturer, etc., was a bril- Not a great preacher—not noticeable for

scholarship—he was an attractive and popular speaker and a welcome guest at the fireside. A short time before his death he thought seriously of devoting himself entirely to lyceum lecturing. He was not gifted with superior business ability. He could earn money but he did not know how to use it to the best advantage; and finding himself poor in purse he hoped by entering the lecture field that he could reap a richer compensation than the pulpit could afford for his service as a preacher, and that while doing good to his fellowmen as a platform-teacher, reaching a larger constituency of hearers, and impressing their minds with lessons of morality and piety, he would at the same time be able to earn a sum sufficient to place himself beyond the embarrassment of debt, and secure a revenue that would support his family handsomely.

He was considering, only a few weeks before he died, a new method of interesting audiences at lyceum-lecture entertainments. His plan was to find a good story-teller to accompany him to his appointments, and on reaching the platform one of the two should tell a story and take his seat. Immediately the other should rise and respond in a similar strain, by telling a story to match the one that had been told by the speaker who preceded him—each one speaking ten or fifteen minutes in turn, until the time for closing.

The Rev. J. Hyatt Smith was born in Saratoga County, in the State of New York, about sixty-two years ago. His father removed to Detroit, Michigan, when he was a boy. His youth was somewhat varied, until he concluded to study for the ministry. After a course of preparation he was licensed as a Baptist preacher in Albany, N. Y., in 1848. He afterwards held charges in Poughkeepsie, Cleveland, Ohio, Buffalo, New York, Philadelphia, and for many years he was a pastor of a Baptist church on Lee Avenue, Brooklyn. He had the pastoral care of a Congregational church

in Brooklyn at the time of his death. He was the author of three or four books—one of which, entitled “The Open Door,” became a subject of long and bitter controversy. In that book the author discussed the questions of “Baptism” and “Close communion.” His opinions on those questions excited a vast deal of comment and criticism, and made him widely known to the religious world. During the three years and a half of his ministry in the Erie street Baptist church, Cleveland, Ohio, he increased the membership from twelve to three hundred and fifty. Hundreds were brought into the Washington street church, Buffalo, during the five years of his pastorate there. He was seven years pastor of the Eleventh street Baptist church, Philadelphia, where he endeared himself to his people and greatly strengthened the church. The *Boston Traveler*, speaking of one of Mr. Smith’s works, said that it deserved a place in the library with Spencer’s *Fairy Queen* and Bunyan’s *Pilgrim’s Progress*. He had been abroad, and one of his most interesting lectures gave an account of his travels in the East. His “Snow Ball” sermon to Little Folks has been a source of pleasure and profit to thousands of children. One of his most popular lectures was entitled “Parlor Lions and Platform Mice.” He was a frank, fearless, impulsive speaker, and in his happiest moods was often truly eloquent. He seldom wrote his discourses, trusting to what the lawyers call a “brief” and the inspiration of his emotional nature. His sermons and speeches were not infrequently unique pieces of literary mosaic work with propositions and principles laid down here, anecdotes and reminiscences dove-tailed there; with logic, and philosophy, with wit, humor, pathos and poetry, and the fine gold of delicate and tender sympathy. His earnest and unpretentious manner in the pulpit—his off-hand greetings in the street and shop, his democratic habits of

dress and address, his inexhaustible fund of anecdote and mirth, and his overflowing tenderness of heart, made him a great favorite with the few who knew him intimately and with the masses also. His experience in the store of trade, in the bank as a clerk, on the stage as an amateur actor, in the political arena and in Congress, gave him great opportunities for the study of human character.

G. W. BUNGAY.

It is nearly ten years since Mr. Smith had the following description of his Phrenology written, and it will be seen, we think, by those who knew him, that the points then made by the examiner were verified in his life :

This gentleman has a head measuring twenty-three and a quarter inches, which is decidedly large, sufficiently so for a man weighing 180 lbs. but since his weight is only 140 he is 40 lbs. too light, and were it not for the fact that he is remarkably wiry and enduring he would have been worn out and laid away long ago. The lung power and the circulatory power being good they furnish vivifying principles, but he ought to have a little more digestive power so that he can convert food into nutrition more abundantly.

Not only has he a large brain but he has sensibility, quickness of feeling and intensity of being, and if he is kept excited he seems to take wing as some birds do when pressed. He has strong imagination, but that is not the strong point of his mind. His Causality qualifies him to understand the philosophy of facts ; he reasons soundly, squarely, and strongly, and when he is conscious that he has a logical basis he feels strong.

He is very mathematical ; and would systemize everything ; he draws parallels when he can and always has in his thought an objective point, a thing to be reached, an object to be wrought out, and he does not lose sight of it ; although

he may follow fugitive thoughts and collateral interwindings, he will bring them all back to the channel.

His Mirthfulness is immensely developed, and if he had been trained to be a comic actor he would have taken the palm from almost any one to-day in that domain. It is said, "There is but one step from the sublime to the ridiculous ;" certainly the organs which recognize congruity and incongruity—viz., Causality and Mirthfulness, are side by side, and the funny people, the wits of the world have been known to have large Causality as well as large Mirthfulness. Dr. Franklin was pre-eminently developed in that direction, and the form of this head in that respect is very much like Franklin's.

He is a critic, and sometimes it is difficult for him to avoid overhauling clumsy statements and awkward remarks, even when he is not called upon by the circumstances to do it ; and he is obliged sometimes to restrain himself from striking out against that which is susceptible of ridicule or contempt. Absurdity seems to him extremely absurd ; it is so glaring that he can hardly let it alone, and if he were an editor he would be thrusting sharp sticks at a great many of his brethren, and would make his paper, if not a *Toledo Blade*, at least a sharp one.

He has the power of Imitation, so that he is able to adapt himself to anybody, and make the action and the word co-ordinate.

His sympathy is almost too strong for his own comfort ; he carries the troubles of other people too much. His Veneration is large and he has a profound sense of whatever is great or sacred ; and though his Imitation and Mirthfulness may often take the helm and ride in a very undignified manner, his Veneration is still a strong and deep-toned element in his nature ; and whenever he meets greatness or goodness, especially both combined, he pays a tribute that is profound, and would feel ashamed of him-

self to hold back one jot or tittle of the just merit of anybody.

His Firmness is enormously developed ; his persistency is not often matched ; he can be led by his sympathies, his affections, by his reason and judgment, but he can not be driven. He feels an inclination to take responsibility and power squarely ; does not ask leave to be or to do and to suffer, is willing to work his way ; when a child he never wanted help ; did not like to be led by the hand.

He has ambition, but it is not vanity ; it is the love of success—the desire to come out ahead, and when his best friends say that he can not succeed or achieve he likes to disappoint them, and enjoys it better than he would to triumph over an enemy. He has large Continuity ; hence, is persistent ; can stick to a line of investigation, and though he may seem to wander into collateral fields he comes back to the original purpose.

He is very strong in the social dispositions ; loves ardently ; is fraternal, and would be a good friend. He is paternal, fond of children and women, consequently wherever he goes he makes many friends ; and people who come near him understand him ; hence, he has a great many fast friends, those who would fight for him if necessary.

Combateness is large enough to make him a little pugnacious, and his

Destructiveness is sufficient to make him severe, but he doubtless has steered clear of mere personal controversy. When he is engaged in any public cause and has given himself to it he works with vigor ; when he feels that he is sustaining somebody, some sentiment or some idea or cause, he can work for it with a great deal more freedom than if it were a mere personal matter ; he feels rather ashamed to make a quarrel personal ; hence, as a lawyer, he would struggle for a client a great deal harder than if the cause were his own.

He has not large enough Secretiveness, and the community knows his faults ; he does not have anything to conceal, and feels that the safest way to get along is to talk right out and live openly and have no concealments.

His Language is large enough to serve him wherever and whenever it may be required, and in public speaking he never thinks of the words ; he simply follows a line of thought, and lets the words crystallize around it ; we may say in this respect that his illustrations originate in Imagination and Comparison and enable him to talk as rapidly as if he saw the great panorama and only had to look at the scenes and describe them. Imagination paints the scene, and Comparison enables him to select the most appropriate.

N. S.

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 16.

FRIENDSHIP.

SOMETHING more is needed besides these faculties of Inhabitiveness, Conjugality and Parental Love to draw people together into communities. If only the interests of the family and the home, which these are directly concerned in, were the object of life you would expect people to be scattered here and there in little family groups, and between those who were not related by rather close ties of blood there would be little intercourse

except for the purposes of trade or perhaps to gratify the feeling of benevolence. What we know of society as it is would not exist—because that really depends upon a feeling or faculty beyond those I have just named, and although some writers have tried to show that society, or the coming together of families and people into communities, towns, cities, is a sort of out-growth for the purposes of mutual protection and advantage, and

scarcely more than the exercise of a common-sense view of their circumstances would lead to. I think that you will believe with me before I have finished this talk that something more than the



BROWN AND SMITH. "ALWAYS TOGETHER,"

desire for personal advantage, or selfish gratification holds people together.

There are a great many who seek the society of others even though they know that they will lose by it. People who do not really like each other, and for good practical reasons, appear to like to live together, just as a dog will sometimes cling to a man who treats him cruelly, and can not be coaxed away. If association between man and man were dependent upon their desire for mutual advantage this could not be. No, the faculty of Friendship, or Adhesiveness as it is often called, reminding you of the force you read about in the school-books called "cohesion," draws people together who have no family ties between them; they may be entire strangers and of different races, yet seek each other's fellowship and affection. The feeling then can exist in great strength entirely apart from all the other social feelings, although it may help to strengthen the ties of family and kindred.

Among young people it acts with great force. You sometimes are drawn to-

ward a boy or girl the first time you meet them, and feel a real delight in their society, although in disposition and appearance they may not be at all attractive to other young people. Then you see persons who are almost all the time quarreling about something, yet seem to want to be in each other's society as much as they can be. If any one should interfere when they appeared to be ready to "pitch into each other" and with tooth and nail decide their difference, he would be likely to find himself made their common object of attack. Some people are naturally quarrelsome and really enjoy a war of words, and they will find associates who don't seem to be affected by their repeated outbreaks of ill-temper. The Irish are very quick-tempered and quarrelsome; the Spanish are hot and snappish, yet these two races are very warm in their friendships. I have known two Irishmen to squabble bitterly one day, and the next day when one met with a serious misfortune the other



LARGE FRIENDSHIP. MISS H. D.

went straight to him and offered everything he had to help him.

Then again we see people who have little moral feeling, very little kindness

or sympathy, may be even mean and greedy in their conduct, yet are fond of society and take every chance to be in the company of others. A hermit or recluse may be gentle and tender-hearted and express a great desire to do the world good, yet, living apart from the world, be prevented from doing the good he talks about. If Benevolence and sympathy had so much to do with drawing people together in society he could scarcely be a hermit. But such persons are usually

notice and returns their attentions warmly.

It is pleasant to see how this faculty works in young persons, girls especially. If two are together who have it strong, they are fond of embracing each other, and walking each with an arm encircling the other's waist, and it is not unusual to see them with their heads in contact at the back part.

Animals show the feeling also, wild animals as well as tame, and those that



THE PLAYMATES.

weak in the feeling of Adhesiveness constitutionally ; their heads are not wide in the back part, but narrow and cramped in the region that borders on Inhabitativeness and Parental Love. (See Division 3 in Diagram of the Organs, January number.) Those whose attachments are strong, who make friends readily and keep them, have full, round heads in the part that I have described. They who are changeable, forget their friends, when separated from them for a long time, and take up with new acquaintances only to be indifferent after a little while, are wanting in this feeling. You may know a person who has it strong by his action when in company ; he shakes hands in a warm, earnest way, and likes to caress his intimates ; is pleased by their

go together in herds, like horses, bison, wolves, and cattle, have it. We have a dog that shows his Adhesiveness in a very striking way. When any one of the family has been absent from home for a few days and returns, he can not at first contain himself for joy ; but after circling round and round, jumping over chairs and tables, barking and whining for a few minutes he will go and lay his head in the lap of the returned one, and if a hand is placed on the back of his head, he will close his eyes and remain almost motionless for sometime, as if profoundly enjoying the attention.

You know how parrots act. They are very sociable birds. I have thought that their habit of inviting each other to rub the back of their heads, is an indica-

tion of the activity of their organ of Friendship. One day I was up in the Zoological Garden of Central Park, and while looking at the monkeys, I saw one run to another, touch him with a paw, and then bend down his head. The other looked at him for a moment and then deliberately went to work with both hands in the hair of his brother. At first I thought that it was a good instance of the action of Friendship; perhaps it was in part, but I soon discovered that it was a procedure quite common with monkeys, who are annoyed by the companionship of too many fleas.

LOVE OF HOME.

Home! What a world of tender sentiment is contained in this simple word! How many interests cluster around it! In the brain we find a center, close to the centers of Parental Love and Friendship, that has a special relation to the faculty of Inhabitiveness or Love of Home. A fair consideration of the necessities that grow out of the exercise of man's other instincts, especially the social ones, would convince any one of the importance of a settled place to him, where he can live in quiet retirement, enjoy the comforts of life, and make provision for the health and education of his children. In the young this feeling soon shows itself rather strongly; the little boy no sooner begins to run about than he wants his own place at the table, his little chair, his own bed to sleep in, and to be regarded as of some importance in the household; then the circumstances of home make the deepest impression, and in old age they are dwelt upon with great pleasure.

It seems to me very unfortunate for a young man to be lacking in this faculty, because it has so strong an influence toward making him steady in his conduct. One who has no attachment to home, is disposed to lead a wandering, restless life. All places are alike to him, and whether he shall stay more in one than in another, depends upon what he finds to do, and the effect of

his associations with people. He is not a home-maker, but dependent upon other people for anything akin to home. Such boys are fond of reading books of adventure; they admire cow-boys, and



LARGE INHABITIVENESS. MR. GOSCHEN.

bold explorers, and if allowed the bent of their caprices, are likely to form bad habits. Like dogs, wherever they enjoy themselves, find welcome companions, there they like to stay, and as such influences are not self-restraining, like those that belong to home, they may take on habits of vice and recklessness. Can you name a really bad boy who is fond of his home? We read in the newspapers of youthful law-breakers, boys of sixteen or seventeen who deliberately set to work to rob, and pilfer, and destroy—a terrible career at any time of life—and when they are questioned it is found that they have not known what a home is, but have lived mostly in the streets, and been loose and reckless vagabonds.

This faculty does a great deal toward forming what is called a community or settlement. The influence of Friendship is directly toward keeping people together, as I shall show you later, but I think that Inhabitiveness is the feeling that es-

pecially makes a community fixed and lasting. Some thinkers have disputed the necessity for a faculty of this kind, saying that Friendship and the family relation are at the bottom of the conduct we ascribe to it; but I can not understand how the action in this respect of many birds and animals can be accounted for. There are all those we call "migratory" birds, that go South on the approach of winter and come North in the spring; most of them return to the same places year after year, and will even build their nests in the same tree. The oriole, the martin, blue-bird, wild pigeon, and robin, love one place, and

home, and will stay there when the family that took care of it from its birth has gone. We sometimes come across people who have lived in one little town or village until they were gray, and never gone fifty miles from home. I have known those who had never seen New York, although within a few hours ride of this great city. They were not wanting in intelligence; they liked to read and hear about the doings in the city, and often thought that they would go and see it, but somehow they never got fairly started. You look at such people's heads and you see at once that they are great home-lovers; the



"BE IT EVER SO HOMELY."

cling to it. The robin often remains North through the winter as if the frost and snow were not strong enough to drive him away from the spot he loved.

Animals generally show this instinct, the wild as well as the domestic—but in different degrees. There is a great deal of difference between a dog and a cat, as most of you know. A dog is much more intelligent than a cat but will go readily away from the house where it was born and had lived many years when the people to whom it is attached go. But a cat has a clinging fondness for the old

back part of the head projects right out, like a knob almost, at Inhabitiveness. A short time ago I heard a man say that he had not slept away from home a single night in twenty years; although he often went on little trips for business purposes, yet he always managed to get home before midnight. He felt as if he could not sleep in a "strange bed."

Home-loving people are patriotic and loyal. There are the Swiss and the Norwegians, and Scotch, always renowned for their patriotism; they are large, as a class, in Inhabitiveness, and how re-

markable they have been for devotion to home and country, as you may know by reading their history. The poor Poles, who have suffered so much from oppression and wrong from the strong and greedy nations that surround them, are another example of the influence of this faculty.

The portrait of Mr. Goschen, a prominent member of the British parliament, shows a good development of the home sentiment. A liberal in politics he is nevertheless so marked in his loyalty to England, and so averse to anything that savors of division in the structure of the Empire that he is found in alliance with the Tories in the discussion of Irish affairs.

There's an "economic side" to this study of Inhabitiveness, as the philosopher might say, that shows the wisdom of the Being who planned the organism of man. It is because of this faculty that all parts of the earth are settled; its influence makes the Esquimaux contented with his ice-hut and the African satisfied that his smoking-hot jungle is the most delightful place in the world. It adapts men to the land in which they live. You go to a distant town to visit a friend, and you find him

living on the edge of a dusty street, with perhaps a pond of stagnant water in the back lot, and rickety, unpainted buildings on both sides, and everything about, appearing to you straggling and uninviting. You say: "I don't see how you can live here. I couldn't." He opens his eyes widely in surprise, and says, "Why, I think it's very pleasant. I like it." His Inhabitiveness makes it attractive to him just as the same faculty in you makes your abiding place agreeable to you. But there are places that are known to be unhealthful and repulsive in many ways, yet people will persist in living in them, all the time aware that it would be better to get somewhere else, because somehow they can not make up their minds to move from the old house. If we were all disposed to follow the lead of reason, and choose for our home the country that had the best soil and climate, and other natural conveniences for living, certain parts of the world would be overcrowded, and parts that are now pretty-well filled up, like New England and the great Northern plains of China, would be without an inhabitant. Inhabitiveness, you see, plays a great part in the distribution of the human race over the globe.

EDITOR.

HEREDITY AND ITS LIMITATIONS.

"We have come to feel Heredity a fate, and inevitable as Fate; yet her inheritance is out-grown."—*Mrs. Herndon's Income*.

"NATURE disavows Heredity and hacks at it with a two-edge sword." We find this startling affirmation on the first page of a biography, published a few months ago, of Daniel Morgan, the Revolutionary hero. It is no denial, however, of the fact that we all inherit our bodies and qualities of mind and temper from our ancestors, but simply a declaration that when an emergency arises, there arises for the purpose of meeting it an heroic personage en-

dowed above his fellows and gifted with a nature beyond that of his progenitors. The author herself almost says as much: "We like to think that there must have been honor and virtue in the stock that sent forth such a shoot," she candidly acknowledges; and then adds her explanation unflinchingly: "Yet we know of a certainty that the gods were there." There is no denial that Heredity has its place and office; but only that these relate to the common life. When there is exceptional work, there is a higher law than that which produces the individual to achieve it.

The great men, the master souls that have at one time and another fledged themselves upon this earth, appear as so many witnesses to the truth of this declaration. We instinctively recognize those rare individuals who impart to us new modes of thought; who lift or drive us from the prescribed ways of thinking and doing; who inspire to nobler action, and so make over anew the world about them, as envoys from a higher region come on this errand. The ancients voiced this conviction in unequivocal language; and classic story in every climate has described the founders of commonwealths, the reformers of national institutions, and the teachers of superior knowledge, as the sons of God. Romulus, Theseus, Orpheus, Plato, and Pythagoras, great above their fellows, were thus translated to divinity.

These remarkable personages, however, do not always appear at our moments of necessity. When the wagon had become deeply bemired through the carelessness of the driver, Hercules did not come at his supplication to relieve the over-taxed oxen. "Put your own shoulder to the wheel," cried the god; "it will be time enough for me then." We may be assured that however much nature may hack at Heredity when it interposes as a superhuman lethargy to check a proper activity, she will always employ it in all the operations of life. The universal law holds good that like will produce its like. Thorn-bushes yield no grapes, and thistles no figs. The fathers eat sour grapes and the children's teeth are set on edge. A poet of our own day has expressed it:

"By blood and brains we are predestinate
Each to his own course; and unaware
therefore

The heart's blind wish and inmost counsellor

Makes times and tides; for man is his own fate.

Nativity is horoscope and star!

One innocent egg encloses song and wings;

One, deadly fangs and rattles set to warn.

Our days, our deeds, all we achieve and are,

Lay folded in our infancy; the things
Of good or ill we choose while yet unborn."

There is more than mother's milk, even with lessons given at the mother's knee, to determine quality of character. The thoughts, desires, purposes—every element of her being that has become active in her former life, all unite to form the child's nature; and this with great definiteness. A trait of the disposition, a feature, a redundant toe or finger, has been engrafted upon a family stock, and continued for many generations. Every individual in respect to bodily conformation and mental tendencies, is very certain to be what the ancestral influence has determined. We find him fair or brown of complexion, tall or short of stature, spare or corpulent of body, serious or trifling in disposition, studious or superficial in habit of mind. We may forecast with tolerable accuracy, from knowing the parentage, the probable conditions of mental and corporeal vigor, the moral proclivities, the peculiarities of taste, temper and character. Heredity determines the probable duration of life, the stature and physical proportions, and frequently the mental aptitudes.

The Koran treats of fate—a Kismet the limits of which may not be overpassed. Like the old compacts of human beings with the tempter, it is a decree written with the blood. The conditions include the infant in the inexorable sentence. The Asiatic despot considers the children of the felon as alike guilty with him, and consigns them to a common death. Our jurisprudence in this respect may be more benign, but in our convictions the many among us are hardly less sweeping.

"It often appears in a family," says Emerson, "as if all the qualities of the

progenitors were potted in several jars—some ruling quality in each son or daughter of the house, and sometimes the unmixed temperament, the rank, unmitigated elixir, the family vice, is drawn off in a separate individual, and the others are proportionally relieved. We sometimes see a change of expression in our companion, and say—his father, or his mother, comes to the windows of his eyes, and sometimes a remote relative. In different hours a man represents each of several of his ancestors, as if there were seven or eight of us rolled up in each man's skin—seven or eight ancestors at least—and they constitute the variety of notes for that new piece of music which his life is. At the corner of the street you read the possibility of each passenger in the facial angle, in the complexion, in the depth of his eye. His parentage determines it."

This inheritance is exhibited in more than general characteristics. In examples where a father has changed his pursuits, employments, mode of living, or even religious belief, the children born at the different periods have exhibited analogous diversities of taste and disposition, sometimes almost as great as if they belonged to other families. The very moods as well as mental conditions are often thus fixed from the first dawn of embryonic existence. "Thy father must have been drunk," said Diogenes to the silly youth. Indeed, the propensity for alcoholic drink, with its peculiar accompaniments has been known to entail itself; thus perpetuating the sins of the fathers upon the children for generations, and even extinguishing the lineage outright. What is more noteworthy, the desire for liquor, when not satiated has been transmitted by a mother, and the emotional excitement of a few moment's duration has shaped the entire outline of a child's nature.

Theorists have suggested methods by which to substract the pernicious elements from the sum of humanity. A mass of literature has been accumulated in re-

gard to the nuptial alliances of kindred, and some writers have gone so far as to declare them unphysiological and incestuous. We are required by them to believe in the existence and operation of a moral law upon this subject, which was never known by prophet or patriarch. They overlook the fact that a conjugal relation which would be physiologically objectionable between persons near of kin, would be equally so between individuals of similar psychic and bodily conditions, who were of different families. If this were not so we might presume that some instinct in nature would be present and create a mutual repugnance. The simple fact of kinship, it is therefore evident, does not constitute any such source of evil. The experience of the world, as shown by history is entirely favorable to such intermarriage. The races which have most practiced it exhibit no material deterioration of physical stamina, but have generally advanced in civilization; while exogamous peoples are often of a low type and barbarous.

It is a fact, nevertheless, that there exists in the customs of the various countries an indifference in other respects, which is to be deprecated. More heed is taken of social usage and ecclesiastical canons than of more vital considerations. Some scruples may be entertained in regard to race, family, or personal matters, but few care to make further inquiry. There appears to be a total disregard to inherited idiosyncrasies and their possible transmission. Many would scoff at a prospective bride who would attempt to ascertain such facts, regarding her as coarse, and without proper delicacy and maidenly modesty. A man who should be tenacious in such respects, they would mark as unpractical and visionary. What is usually described as marrying well relates chiefly to wealth and social position, but has too little reference to those matters which are paramount in their importance to human welfare.

For example—crime can often be traced

to a source among the progenitors of the criminal, sometimes to a physical cause, but more frequently to their moral obliquity. There are hereditary criminals, born of convicts, or of ancestry, whose criminal impulses may have been repressed by the law or may have been indulged, but without a criminal conviction. (See *Forum*, Vol. II., p. 263.) Right here, intermarriage produces its most pernicious results. A nuptial alliance of such persons or with them, is likely to be a breeding source for criminals, and whether their unworthy acts are of a character that will bring upon them the condign punishment of law, or of that more acceptable form that "Society" tolerates or even applauds, the moral degeneracy is all the same, and the likelihood of its transmission to the coming generation.

Some have proposed to interfere by law, or equivalent restrictions, to prevent the ill-organized relations. Very much can be pleaded in favor of this severity. The progeny of shiftless and criminal parents are always with us, and we are unable to do them the good which we might, because of their unfortunate inheritance. The multitude of hereditary tramps is increasing in proportions that occasion much alarm. Our prisons and poorhouses abound with inmates whose heritage was of the same character. The inordinate use of alcoholic drinks operates directly to recruit the army of criminals and paupers. It has been conclusively shown that our lower courts are chiefly necessary for the purpose of trying offenses resulting from this cause. The sons of the alcohol-drinker are tainted in all their blood, and their imperfect vital inheritance renders them morally weak in their behalf, and to prevent others from similar calamity, our Legislatures are besieged for statutes to prohibit the traffic in spirituous liquors.

Doubtless there should be no nuptial union with individuals thus contaminated with imbecility and moral depravity.

We ought to go farther, and hesitate in regard to the mating of persons of repugnant natures. The dove may not be wedded to a hawk, nor the eagle to any reptile or quadruped. Hybrids of every sort are in many departures from the order of the universe. We have little toleration for the bat, with its bird-like wings and mouse's body. Conjugal alliances between individuals of diverse blood and temper are very certain to be prolific of evil and to be incapable of becoming holy and sacred.

The proper rule, however, would be very difficult to lay down or enforce. Obscure physical causes operate to modify and even to reverse the principles which we imagine incontrovertible. The gifted and illustrious are most often childless. Only the inferior and mediocre are very certain of progeny. There exists a curious analogy between human beings and fruit trees. The varieties which are carefully tended will produce luscious fruit, but only withered and shrunk seeds; while the common stocks that often have but little care will yield a coarse and superior product, but the seeds will be large and plump, and every one of them capable of germinating and becoming a thrifty tree. More than this—occasionally some of the fruitage itself will excel the rest, and attain a superior lusciousness, approaching and perhaps rivaling the more favored varieties. In like manner, there are brilliant exceptions in the various families of plebeian humankind. Marriages which are productive of disorder and misery to those immediately concerned will sometimes bring forth individuals of rare merit and excellence. Indeed, we can not withhold the humiliating acknowledgement that very much of what is generally regarded as superior culture and perfection, is really a physical if not also a moral deterioration, which will eventually debase the lineage, and if not recruited by some collateral intermingling with a family of better vital stamina, will extinguish it outright.

This complicates a matter which might otherwise have been considered plain. It becomes a serious question, therefore, whether many of those who have been held in low estimation, and even been socially proscribed, are not endowed with qualities of nature and character which may not be safely omitted from the sum total of our improved humanity. We should act therefore prudently and as appears right to us, but diffidently—in full consciousness that our knowledge has its limitations, which a superior law and a diviner wisdom transcend.

The serious defect in the current notion in regard to Heredity comes from the scientific materialism which pervades it. Physical and physiological considerations are uppermost. We are treated to surfeit with conjectural erudition about brain-structure, cell development, and the various corporeal accidents. A science, if we must call it so, which has no higher source, will never become philosophic. It will not cease a floundering in the mire. Its chief deduction will constitute our bodily structure an invincible fate which we may not escape or overcome. By such reasoning our entire nature can be little else than an elaborate grouping of chemical elements and properties, capable of a precise arithmetical computation, and all moral and spiritual qualities are but the accidents of molecular arrangements. The fatalism of the Moslem is not more absolute and inexorable.

The common instincts of men repel such notions. The moral conviction of the civilized world utterly repudiates them. We are all of us conscious of the ability to act as we choose, and of our blameworthiness if we do wrong. Whatever may be the intensity of the hereditary impulsion, it does not exonerate from responsibility. Common-sense accepts it only in possible extenuation of an offense, but not as an acquittal. When the slave of Zeno pleaded that fate had decreed him to

steal, his master promptly replied: "Aye, and to be whipped for it." The plea that Heredity is as fate to determine character and conduct will always be decided in the same way.

When Mahomet was four years old, it is related that the angel Gabriel came to him as he was at play with other little boys, and taking him aside cut open his bosom and wrung out from his heart the blood which contained the seed of sin. "How shall a man escape from his ancestors?" asks Emerson; "or draw off from his veins the black drop which he drew from his father's or his mother's life?" The philosopher of Concord will accept no dogma of Heredity as supreme above free will and conscience. Behind every individual, he declares, closes organization; before him, opens liberty—the better, the best. Man is not the automatic representative of his ancestry and the conditions which exist about him. No power can make the past other than that it has been; but every intelligent effort may be employed with reasonable confidence to make the future different from what it otherwise would be. By that effort man becomes the creator of his regenerated selfhood. He works voluntarily, and if we may use the word, supernaturally. By the transforming of his character morally the direct influence and casual energy also operate to clear off the perversions of Heredity and renovate the whole nature by infusing the higher qualities of being itself. What will thus appear to the superficial observer as a new creation outright will be known to the clear-sighted witness as the evolution of the person or more truly himself. The human inheritance which had seemed before to constitute the man in his entirety is manifest in its true relation as extraneous to the real personality which has now both subjected and assimilated it.

In the book entitled *Mrs. Herndon's Income* a conspicuous example of this kind is portrayed. Meg is a woman whose ancestry for an unknown period

consisted of social outlaws and inveterate criminals, and who had herself been reared under conditions thoroughly suited to make her reckless and profligate. She became proficient in her lessons, and would swear, lie and steal with a facility acquired from long and steady practice. Beating and threatening were her girlhood's experience. Fortunately, and without doubt providentially, for this is a story from actual occurrences, she had once, during her immature girlhood, obtained a single glimpses of a better way of living, and had preserved it in mind during those fearful years, hoping that somehow there might be opportunity, even for one like herself, to escape and rise above the evil life. Even under temptation and despair she refused to become abandoned; and finally after passing through the most terrible ordeals and perils, she is at length redeemed from all those evils and entanglements of early training, race, and circumstance. This seems incredible; yet every reader wishes and hopes that it is true. Human nature revolts instinctively against every dogmatic utterance of hopeless degradation. We never believe in the existence of reprobates except when we are enfeebled in vital energy and moral force.

It is not well, however, to regard the matter on the one side only. These examples of individuals who have cast off an inherited mental ataxia and become good and true, are but sporadic. They seem to be sure to prove that ancestral heritage is by no means so potent as to constitute an irresistible fatality, compelling us to virtue or vice as by an iron law. Is it not possible, however, and even likely, that there were impressions made somewhere in the course of the nativity, from some source that has been overlooked?

This woman, Meg, is represented as surrounded and involved by all manner of woful conditions, with all the inherited propensities of a depraved and vaga-

bond race. She could have no salvation, except "as by fire." Yet, if she had been wholly and unqualifiedly evil, she must have been totally and absolutely unsusceptible of better influence, and that fire would then have effected her total destruction. There seems, however, to have been possible redeeming traits in her parents. Her father, bad as he was, had a certain disposition for useful industry, and this she, too, possessed. She was willing to work, and though her errors were hard to retrieve, no woman that will cheerfully do honest work is ever wholly lost. Meg, too, had a mother, who is barely mentioned, but who seems to have been of a stock that was less restricted. So there were possibilities for her, even in the lowest abyss; and by the energising of these she was to outgrow her foul inheritance. Woman-like, she anticipated this deliverance from the aid of a lover's affection and a husband's encouragement. Instead, however, she encountered the most terrible deception; yet, in spite of her despair, she held fast her integrity. Though "she had been and done nothing but evil," and though fate repeatedly involved her in seemingly hopeless difficulty, her terrible trials were her purifying fire. She came forth from them worthy, true and good. She had not only outgrown her own evil inheritance, but her boy, who had been tainted still further from the pernicious infusion of a viler fatherhood, was also redeemed.

The Twelve Disciples, it is recorded, put the question to their Master: "Who sinned, this man or his parents, that he should have been born blind?" And the answer was: "Neither he nor they!" An admonition to look deeper than common causality or circumstance. Ancestral influence, and even the personal experience anterior to this mode of existence, may not account for individual blemish or other peculiarity. The law which governs all is intelligence itself. It transcends the varying conditions of flesh and blood. It is absolute order

and fitness, and therefore, never operative to perpetuate that which is aberrant and morbid. There is no law of evil anywhere. Wherever evil appears, it is only as secondary ; the imperfect form or else a perversion of the good, having a subordinate office and never of permanent duration. It is protean in shape because it is not a principle of unity.

What are called somewhat erroneously the laws of nature, are constantly operating to remove and repair the perversions which have been introduced into lineages by ill habits, vice and other accidents. The principle of life and health, being positive in all the world of nature, is active to resist morbid influences in the human body, to neutralize their results and heal the injuries ; nor does it yield till it has been completely overpowered. If this be so, where the matter comes within the range of our observation, certainly we may believe in a more effective energy in that department of our being, which is beyond common human exploring.

Very often, that which is manifest to our purblind vision as evil, may be the source and matrix of preponderant good. Even in the matter under consideration, the offspring of an unhappy nuptial union may be great, noble and energetic. The higher law of our life is itself always active to this end, and fully able to relieve us from whatever of fatality may exist in heritage and circumstance. Even though born blind, so to speak, it enables a Divine operation to open our eyes to a world and universe, which many who are seemingly more favored, do not descry ; and the debased, corporeal nature, which came to us from our progenitors, it will transform into the similitude of the more excellent. "We have come to feel Heredity a fate, and inevitable as fate," says Mrs. Herndon ; "yet her inheritance is outgrown."

There seem to be many human beings of whom it may truly be said, that they do not come up to the measure of men. The very diseases that prevail among

them, the epidemics that thin out their number, the indifference and apathy which they exhibit toward everything that is not meat or money, are so many manifestations of a degraded heredity. It is the province of the higher soul to put these conditions into the background and to make life worth the living by developing its value. This means more than the overcoming of evil ; it is no less than its actual assimilation and its transformation into the higher good. The old geologic nature, which the remoter past has conferred, its reptilian qualities, even its brutal sensualism and treachery are to be converted into the higher intellectual and spiritual endowments, which belong to us by virtue of our nobler heritage from the interior life. For we may count ourselves possessors of a double inheritance—one from the earth and the other from heaven. "The soul is a bird," says the Hindu sage ; "it comes in at one window, we know not whence, and flies out at another, we know not whither."

We shall be wiser when we comprehend these matters more intelligently, and adapt our action accordingly. Neither men nor nature will be crowded in the compass of a limited imagination. If the future, indeed, moulds the past into its own material and quality, then much that we regard as useless and even productive of harm, will be found to be superlatively useful and necessary. All vices are but virtues, perverted from their proper place and function. It is not unlikely that more intelligent action and less arbitrary repression may show us greater facility for improvement than our contracted vision apprehends. Doubtless, the impracticability which precludes the elimination of undesirable elements from further influence in a family line, is not unfortunate after all. There is a Providence, a law of combinations, analogous to that of chemistry, that contemplates as wholesome and beneficial what we regard as evil and

pernicious. "What God hath cleansed, thou mayst not esteem as common or unholy."

Heredity is accordingly no arbitrary power shaping our career nor is it a Nemesis pursuing us to our doors. We come into existence as our mothers produced us, our nature freighted with qualities which had been accumulated from a long line of ancestry. The Buddha says, that the deeds committed in the prior modes of existence also determine our present physical condition and career. At any rate, every one feels instinctively that he did not begin here. He animates a body with a shape and contour, which was the property of ancestors, and in his action and conscious thinking, they seem often to have incarnated themselves anew. This Heredity constitutes the grand work of his career, but there exists no sufficient reason for it to dominate the rearing of the superstructure. Fate is itself limited; and the conditions of nature are not impassable. "Whoever has had experience of the moral sentiment," Emerson declares, "can not choose but believe in unlimited deeds." Heredity comes to its limits when the human will exerts its freedom. The will is free when it casts off the

bondage of corrupt nature and moral imbecility. This freedom is of necessity conditional by intelligence and knowledge. An ignorant or ill-cultured man is always in subjection to his temperament and physical nature, to his circumstances, to all who know more and think more profoundly than he. The truth is our liberator. Its engrafting into our consciousness renders it an essential principle of our nature.

Powerful as Heredity may be, its duration is circumscribed by the limitation of corporeal existence. If its dominion is terminated by the dissolving of the body, it is also transcended by the higher intellect asserting its own supremacy over the natural and even the physical regions of our nature. "We know," says Paul, "that if our temporary, earthly house should be dissolved, we have a permanent abode eternal in the heavens, and we desire not to be divested of it; but endowed—that the mortal may be surpassed by the life." To the many Heredity, and with it the corporeal nature, constitutes an imperious destiny, a wall inclosing them on every side; but the noble and the intelligent go from the top of that wall into the complete life.

ALEXANDER WILDER.

PRIMITIVE PEOPLE ON THE COLORADO.

IN a late number of this magazine a view of the Grand Canyon of the Colorado river was given, and some account of the wonderful country through which that river penetrates. As yet that country is by no means well-known to the pioneer and explorer, and fresh discoveries are made by those who have the boldness to venture into the vast and rugged wilderness so far from white settlements. There are families or tribes of Indians living in many parts that have rarely seen the face of a white man. Powell, in his interesting book, speaks of visiting some of these Indians, and noting their peculiar customs, which in-

dicates a more nearly primitive state of mental development than is shown by any of the American aborigines with whom we are familiar.

During rain and cold weather these people live in shelters made of boughs or bark of the cedar which they strip off in long shreds. In that climate most of the year is dry and warm, and at such time they do not care for shelter. Clearing a small circular space of ground, they bank it around with brush and sand, and wallow in it during the day, and huddle together in a heap at night, men, women, and children, buckskin, rags and sand. They wear very little

clothing, not needing it in the lovely climate.

On the mountain side grow wild fruits, nuts and native grains upon which they mainly subsist. The oose, the fruit of the Yucca, or Spanish bayonet, is rich, and not unlike the paw-paw of the valley of the Ohio. They eat it raw, and also roasted in ashes. They gather the fruits of a cactus plant, which is rich and luscious, and eat them as grapes, or, after expressing the juice, make the dry pulp

keep the coals aglow and the seeds and tray from burning. The old women are very skilful in this work ; they roll the seeds to one side of the tray as they are roasted, and the coals to the other ; then grind the cooked seeds into fine flour, and make cakes and mush. For a mill they use a large flat rock, such as is shown in one corner of the accompanying engraving, and another small cylindrical one in their hands. They sit on the ground, hold the rock between the



INDIANS OF THE COLORADO CANYON.

into cakes, and save them for winter ; while the juice, they drink about the camp-fires.

They gather the seeds of many plants, as sunflowers, golden-rods, and grasses. For this purpose they have large conical baskets, which hold two or more bushels. They put the seeds with a quantity of red-hot coals into a willow tray, and by rapidly and dexterously tossing them,

feet and legs, fill their cups with seeds, making a hopper to the mill with their dusky legs, and grind by pushing the seeds across the rock. There is very little large game in the country ; but rabbits are plentiful, which they shoot with arrows, and occasionally take with nets. In the autumn, when other things, in the line of eatables fail, they eat grasshoppers.

THE SINGERS OF THE SOUL.

The storehouse of the mind is full of thought,
That never to the halting tongue is taught;
And floods of song float outward on the tide,
Then backward through their channels
softly glide;

While through the aisles, with measured
steps and slow,

The singers of the soul pass to and fro;
Or down some sunny slope with twinkling
feet,

Are dancing to a measure soft and sweet.

One sings a song, 'twould thrill us with
delight,

Could we but catch the metre in its flight;

One rouses all ambition's slumbering fires,

And fills us with a thousand mad desires;

Another soothes us with a tender strain,

And bids the troubled heart be calm again.

And can we call each singer at our will,

As we would bid the ocean's waves be still?

If it should please them they may dance and
sing,

Or they may pass us by on silent wing.

Oh, who can tell whence come those mystic
sprites

Bearing their store of sorrows and delights,

Whose mellow voices wake the silent soul,

And through its gloom their stirring an-
thems roll?

Cans't thou not capture them and bid them
say

Whence they have come, and whither do
they stray?

Bind fast their fluttering, gauzy wings, and
then

Ask them to teach their sonnets to thy pen!

In vain; we've tried them, and have listened
long

For one wild note of rapture, one sweet song.

Mute were the voices we had thought so
sweet,

And stayed by sadness were those twinkling
feet.

Could captive Judah sing her Zion songs

While brooding by the river o'er her wrongs?

Alas! her silent harps the willows graced,

While by the stream her sorrowing children
paced.

Their tears were mingled with Euphrates
tide,

While on their trembling lips the sweet notes
died.

In vain their captors plead for one wild
strain,

For one sweet song of Zion—plead in vain.

The notes of freedom came not at command;

Her harps were silent 'neath oppression's
hand.

Sing on, ye voices of the soul, your songs!

We pause to listen and forget our wrongs;

And though we may not grasp the 'wilder-
ing strain,

Nor catch the measure of the sweet refrain,

Still all our lives are sweetened by those lays,

Our hearts uplifted in a hymn of praise.

ALMEDA COSTELLO.

JACOB MELTON, THE GREAT BACKWOODS PREACHER.

REV. JACOB MELTON is one of the noted preachers and eccentric characters of the great Southwest—a region prolific in the production of such material, the accounts of whose oddities are viewed with the eye of incredulity in the cultured and conventional East. Such pictures are generally regarded as the exaggerated sketchings of the verbal cartoonist. The subject of my sketch first parted his eyelids in a log-cabin in East Tennessee sixty-one years ago by the watch. Before weaning time, he

was thrown into an ox wagon, along with other household equipments, and driven toward the setting sun. Passing safely the terrors of land, water, and swamp fever, the family finally rested on the wild, fertile banks of the Ruba-deaux, in South Missouri, where they drove down stakes and shoved up a cabin. There Jacob sprang up and blossomed into manhood. There was much in his early years which prophesied future eminence. He had excellent lung power from his earliest sprouting

time, splendid lungs, robust physique, big head, and great intellectual activity. He was eager to learn in early youth, especially when Madam Nature kept school. He was exceedingly alert in all his movements, especially toward the maternal in patches, hazel woods, and 'possum thickets. He had a wonderful innate faculty for judging human nature, and never missed judgment, especially on his mother, who frequently threatened to "beat him to death," but usually compromised by laughing heartily at the freaks of mischief which she had vowed to punish with the formidable "hickory." When Jacob was fourteen years old his father made the long journey from which he never returned. Jacob mourned the loss with all the grief he could command and then centered on his mother a double affection. "I do love my mother," he would often say, "and it pleases me so very much when I hear her tell the clean truth."

A pioneer phrenologist examined Jacob's head—"Firmness, Self-esteem, Destructiveness, hands, Conscientiousness, ears, Combateness, Causality, nose, Comparison, Perceptives, Veneration, joints, Ideality, Sublimity, Language, and feet, all large. What a grand equipment" said the phrenologist with enthusiasm. "You will make the devil rejoice greatly, or give him immense trouble in the future, just as you will choose."

Jacob was an earnest lad, whether he was breaking a yoke of calves, or indulging in an outburst of anger. He was sometimes exceedingly profane. Sunday schools were scarce, and roots in the new ground innumerable. The neighbors would often remark, "If Jake, is hung early, a mighty big preacher will be lost, just shore."

He came in possession of a spelling-book and a reader. With these he ultimately unlocked the door leading to greater riches, in his opinion, than those revealed by the magic lamp of Aladdin.

A peddler taught him the letters which constituted the combination to the grand safe of knowledge. He soon learned to yoke the letters together and make words with them. The mists of mystery which surrounded the old family Bible soon cleared away—or rather dispersed—the latter term suiting Jacob better, not because he delighted to flourish big words, but for the reason that *cleared away* was too suggestive of new ground. His faculty for acquiring knowledge was prodigious—it especially appeared so to his mother, who could neither read nor write, and kept her eyes close in front of her feet when going the mechanical round of her household duties. He became a close reader; so close that there was little room in his time for pursuits in which his mother delighted to see him engaged. The plow accumulated too much rust; the roots crept too securely in the new ground, and the weeds made too much riot in the corn-rows; all these lamentable circumstances were viewed by Jacob with a provoking air of indifference. He would take long walks in the wildwood, listening to the talk of the winds, the whisperings of the breeze, and the inspiring songs of birds; but the tracing of the corn-rows to and fro, the cry of the festive crow, or the quick, dull thump of the roots against his shins, furnished nothing inspiring, nothing which satisfied the hunger of his mind or the thirst of his soul. A few standard works fell into his hands, and remained where they fell. Dr. Channing quickened his religious faculties, and literalized his mind and heart; Orville Dewey in his rich, impressive rhetoric deepened his Conscientiousness, nationalized his impulses, and inspired him with a noble prophesy of ultimate humanity.

What an attractive picture, noble and inspiring, almost pathetic, the view of this poor, uncouth, backwoods boy, living in the lowest sphere, grappling with the largest destiny, far from the centers of culture, and inspired with no motive save the innate promptings and crying,

irrepressible instincts of his nature! He was seeking light which his surroundings never had permitted him to behold. He was longing for a sphere of action about which he knew nothing except from the dreams and representations of his restless faculties. The mental heat, the high aspiration, the daring inquiry of some remote ancestor, had crept unobserved through his immediate progenitors, and now were springing up, blazing out and dominating the mind and heart of this poor, friendless backwoods boy.

* * * * *

Time passed on and took Jacob along. One day, when twenty-four years and two days old, he was seated near the front door of his humble hut, enjoying a feast of his favorite Channing; he had just risen from a feast of pork and sweet potatoes. The golden sunshine streamed through the leafy sifter of a large "butternut," fell down in patches and, pieced with various sloped pieces of shade, spread out a broad crazy-quilt of light and shadow in front of the dwelling. Two well-fed dogs made semicircles of their bodies at the foot of the "butternut;" and, at brief intervals, varied their dozing monotony with quick snaps at the vexing flies and blundering "June bugs." Suddenly a tumultuous clattering of hoofs was heard and a few seconds later, a large, fiery horse, which had deflected from the highway, bounded toward the house, leaped the yard fence and dumped his master in a bruised heap in front of the door. The dozing dogs sprang up instantly, dropped their jaws apart, and threw out two resounding bellows, and made a quick grab at the deposited horseman. Jacob at once leaped from the hut, and sending his right boot against the ribs of the vicious animals interrupted their inhospitable demonstrations. The bruised and stunned horseman was carried into the cabin and placed on the best bed. It was soon ascertained that with the exception of a strained wrist, fractured ankle, bruised

head, and broken "spare rib," that his injuries were slight. The man was tenderly nursed and convalescence proceeded with little interruption. The stranger was about sixty years of age and was as fine a specimen of physical manhood as nature generally puts on exhibition. His mental equipments even surpassed his physical accomplishments, and as his saddle-bags contained a number of books for which Jacob had long hungered, the bond of sympathy between them was soon welded never to break.

One day, while Jacob sat reading, the old man lay eyeing him critically for a long while. Finally, he said: "Jacob, I see a strong point of resemblance between you and myself—our heads are much alike. But yours is larger than mine between the ears. You will have elephantine capacity for good, or a lion's strength for evil." This pleased Jacob greatly. A few moments later the old man said: "There is another point of resemblance I observe distinctly." "What is that?" eagerly inquired Jacob. "Our No. 9 feet," was the reply. It was soon learned that they were uncle and nephew. He was a brother whom Jacob's mother had not seen since she was an infant. "I am no akin to you, sister," the old man said one day. "There is no resemblance, whatever between us, no more than between the horse and the giraffe. Jacob and I, however, are of the same identical blood."

One day, while the uncle and nephew were strolling in the wood, the former said, "We are uncle and nephew, but I want now to establish a still nearer relationship. I want us to be brothers in spirit, brothers in Christ. I came into this wild country to help drive out Satan and establish the reign of good. Go with me as my lieutenant. I am a man learned in sciences, in languages; but you have a learning which my faculties could never gather; you have a power which schools can never give; can not even improve. Go with me." Here

was the opportunity for which all of Jacob's years of thought and unaided study had prepared him.

They start the following week. "Jacob," said the good mother, when they were about starting, "what will become of the corn-crop? What will become of the hogs? They will stray off and become wild if they ain't 'tended to. The red sow an' her pigs ain't been up for two weeks, an'"—

"Don't bother us, sister," said the old man, giving her a roll of money. "We have other harvests to look after."

Two hundred dollars quieted the good, weak mother, and compensated for her distress in giving up her son.

* * * * *

Jacob was as successful in the hunt for souls as in youth he had been in his hunts for coons and 'possums. He once ploughed the fields successfully; just as thoroughly as he would now plough the hearts and souls of men. He once bestowed black eyes on his schoolmates when occasion dictated; he would now encounter Satan, and direct the same energy, redoubled by the co-operation of religious zeal, in defacing his physiognomy. Everywhere that meetings were held the young man's eloquence, enforced by his powerful animal organization, thrilled the people as if they heard a blast from Gabriel's trumpet. Old veterans, who had grown hard and gray in the long service of Satan, renounced their allegiance and rallied to the standard elevated by the young backwoodsman. Nothing could daunt his courage, nothing dampen his zeal, nothing deter either the fervor of his spirit, or the strength and energy of his *good right arm*. The hard school in which he had been nurtured, prepared him for any encounter, either intellectual, spiritual, or physical.

While holding a revival on Dry Fork, in South Missouri, several years ago, he was disturbed much by the noise of some whiskey-inspired ruffians in the rear of the building. A mild reprimand

missed fire. Finally the preacher halted; a threatening light leaped to his eyes. "If you fellers don't stop instantly," he exclaimed, in a voice of thunder, "I will come back there, and revolutionize your features until your parents won't know you." A drunken jeer followed. The preacher's two hundred and thirty pounds of bone and muscle became a concentrated cyclone instantly. He darted for the young men like a lion making for its prey.

One who attempted to draw a pistol was slapped across three benches; the two others were pitched through the window, and a fourth was kicked into a drunken, unconscious heap beyond the door-step. The preacher then coolly returned to the pulpit. "There's jest lots of the devil's cheap strikers," said he, "who must feel the weight of a good big boot before they are capable of feeling Divine grace."

At another time, a great, swaggering, impudent infidel forced himself in front of Jacob and began a violent tirade against Christ and the apostles, calling them charlatans, liars, cheats and frauds. Jacob's big fist soon damned up the source whence issued the stream of blasphemy. As efforts were being made to restore the infidel to consciousness, he coolly remarked: "I have respect and sympathy for the lowest gentlemanly doubter, and for the brutal, ignorant ruffian. I have the only kind of argument he can understand. I try to make a hand in whatever part of the Lord's vineyard I am placed."

The above are only two illustrations of scores of like adventures. He is ready for any work which the occasion furnishes. Distinguished preachers, filled with astonishment at his eloquence and power, have asked: "Why don't you seek a wider sphere—why not go East to the large cities?" "Boston has her scientific religion," is his reply, "furnished by Joseph Cook and others; Brooklyn has her literature of grace by Beecher—all other cities have the

preaching which their tastes and wants demand, and the backwoods has Jacob."

While his mental capacity is universal, his work is nevertheless provincial. His sermons are frequently a solid block of lordly compressed wisdom. Such maxims as the following flow spontaneously from his lips:

"Commonsense is religion and philosophy biled down and all the froth skimmed off.

"If people would spend as much time in looking for the good in man as they do for the evil, how beautiful this old world would soon be in their eyes. How it would sweeten our bitter thoughts.

The millenium would then not be an unsubstantial dream.

"There is more good than evil in man, but the latter is always raisin' a big row and callin' attention to itself.

"I'd rather be a little, simple beggar child in the presence of Jesus Christ than to be Jay Gould.

"The obscure entrance to our good favor is often our true interests; the double door is our self-conceit.

"A man who seeks the badges of religion and neglects good works, wrestles with the devil and gives him underholts."

J. I. N. JOHNSTON.

JULES VERNE.

THIS author is an original; his books—a novelty. Strange to say Jules Verne, who lived for many years in Paris, whose books are read wherever literature is known, has carefully avoided every opportunity to make his own personality as popular as his works. His writings are so peculiar that they can not well be compared with the works of other writers. All his books treat a similar class of topics, yet they never become dull or uninteresting to the reader. There are always new circles in the infinite regions of heaven and earth into which we are initiated; there are new combinations of powers and elements, new characters and groups of persons that are put into activity, and a wealth of imagination, which introduces us to things of surprising and magnificent relations. His adventurous travels in story to known and unknown worlds show an exhaustless fund of material—extensive knowledge of science, of old and new geography, geology, astronomy, mechanism, mathematics, and modern invention. Verne studies the material world in the light of its newest investigations; he takes naked facts, analyses and combines them; he counts with them; makes a

show of discovering new facts of chronology and solving the most difficult problems. This evident realism is one side of his literary character. Next, he vaults into the infinite, and begins a wild dance with meteors and nebulae; there his phantasy carries him into excesses and impossibilities; he jumps through flood and fire, and flies from one point to another, mixing phenomena confusedly together. Jules Verne's motive is to combine the real and known with the ideal and romantic. If it is allowable to speak in paradoxes we say—the author is a modern representative of the phantasms of materialism; his talent possesses an extreme dualism, which would erect upon the results of science the logic of the impossible.

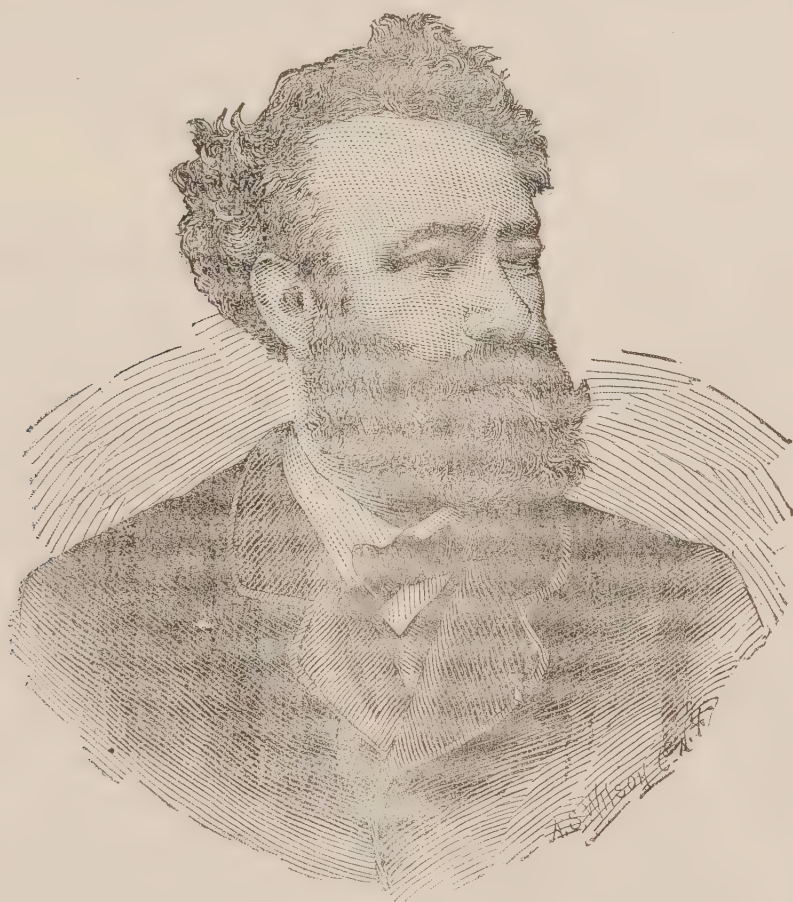
We have heard many of his readers say, "he does not teach, he confuses;" but those who speak in this manner may not understand Verne's power of abstraction, or be able to see the bonds between real knowledge and scientific dreams. The more we study his works the more we are led to admire his boldness and the spirit that animates his beautiful realistic fables. The student who reads them should remember that Jules Verne is neither mathematician, nor as-

tronomer, nor an author of scientific treatises, making no claim in that direction, but a novelist, who knows much and sprinkles it here and there after the manner of an elegant conversationist.

He converses about travels to the moon and around the moon, to the center of the earth, 20,000 miles under the sea, around the world, about trips to the icefields of the North and South, and about investigations in thoroughly unknown zones, and dramas in the clouds. For these expeditions he has created a

to the Atlantic, a cold globe with the remains of organic and human life, or sweep in a balloon over the inaccessible desert and mephitic swamps of Africa.

Jules Verne was born at Nantes, February 8, 1828; was educated in his native town, and subsequently went to Paris to study for the legal profession. This became distasteful because a leaning toward literature was developed in the atmosphere of that center of art and culture, and he commenced writing in the dramatic line. A comedy of his, in



JULES VERNE.

class of heroic adventurers, and bestowed upon them spiritual and bodily powers of wonderful dimensions which enable them to endure and overcome everything.

The most effective pictures in his books are the representations of celestial, terrestrial, and maritime sceneries. His descriptions are always grand; it is the same if we wander with him over the moon-landscapes, or if we look into that fathomless-deep cavern with a mighty ocean on its bottom, or travel

verse, entitled "*Les Pailles Rompus*" (The Broken Contract), was performed at the Gymnasium in 1850. This was followed by "*Onze Jours de Siege*" (Eleven Days of Siege), that was produced at the Vaudeville, and later several comic operas found their way from his pen to the stage, and had a brief notoriety. His fame rests mainly upon his romances, the character of which has been already considered. The first of these appeared in 1863, under the title of "*Cinq Semaines en Ballon*," (Five Weeks

in a Balloon), and it proved so successful that the author was led to write a number of similar books, most of which are familiar to English readers through translation. For instance, "A Journey to the Center of the Earth," "Twenty Thousand Leagues Under the Seas," "From the Earth to the Moon," "Around the World in Eighty Days," "Dr. Ox's Experiments," "The Mysterious Island," "The Survivors of the Chancellor," "Michael Strogoff, the Courier of the Czar," "Hector Servadas; or, The Career of a Comet," etc.

In the portrait the peculiar spirit, sprightliness and dash of his writings are noticed at once. There is the readiness

of the mental temperament with a good backing of the motive and vital. There is perceptive talent with large Language and memory. The head is very large in the upper temporal region, and at the same time rises to a good height. He is a natural son of art, and must yield to the fascinations of esthetics or be wretched. The power of imagination is shown by the development of Ideality and Sublimity. He is a bold, pushing, inquirer, ambitious, and persistent, impulsive and impatient. His true field is in the artistic domain; whether as poet, painter or writer of imaginative works he had started in life he would have shown great ability.

THE DECAY OF THE NEGRO ELEMENT IN CIVILIZATION.

LONG ago, before the life of any man now living, slavery was inaugurated in this country. The very year the Pilgrims landed in Massachusetts was distinguished by an element in society now gone out forever—the service of enslaved people in the South. A reproach it has been in all periods of American history. But henceforward slavery is no longer known. There is no servile race in this country.

To this platitude, all the more significant for the reason that it can be called so, we will add the other trite saying that the negro element is gone with the social departure of the colored race from the homes of the whites—from society, so called, and is gone apparently forever. We no longer see slaves permanently attached to households of whites as we might have seen them thirty years ago.

With the departure of the negro element from society, as regarded in its home aspect, have gone two or three phenomena: 1. The influence of the black race upon children growing and nearly grown; 2. The peculiar traditions, and I may say superstitions, of the blacks ingrafted upon the facile minds of young whites who lived South;

and, 3. The singular religious features cherished and imparted by the black race. With these religious principles and views have in like manner gone the songs of the negroes, their plantation melodies, love ditties, home carols, the peculiar songs and chorus style of minstrelsy, long prevalent and yet lingering among our Sunday-school musical scores.

These things are, as we say, departing. The black race is attempting to assume the education and manners of the whites, and is fast being absorbed in society in the same way that a spoonful of sugar is absorbed in a cup of tea—not to be lost to the sensibilities, though not much further permeating society than to flavor and modify society relations between two such diverse races. He is here still, with his tall hat and his white wristbands, posing as a minister, working as a waiter, educating himself in the colored seminary; only as a mulatto, really accomplishing any serious effect in solid manners.

This is an anomalous state. The Indian remains an Indian to the day of his death, generation after generation. He will not be absorbed into society nor

take on social habits repugnant to him and his race. He dies out. He does not savor society, nor remain distinct from white people in the midst of white society. He does not want to be civilized. The negro does. He does not want to affiliate and associate with the white. The negro would gladly do so.

What we know about the negro therefore should be discovered now, before his representatives depart forever. No large importation of his kind are likely to be made from Cougo—no pure stock to remain unsullied here. He is going

fast. With him are dying out, as fast as they can, his type of emotional religion in white congregations; his style of music from popular melodies; his superstitious or highly Eastern tone of thought from scholarship—felt tangibly in the past generations but now destined to extinction. The East of the European Continent—middle Europe itself—has come to our shores; it indoctrinates us with facts; and facts rather than feelings shall be our immediate affection in the days to come. The days of emotion are forever gone. HENRY CLARK.

NOTES FROM A TEACHER'S DIARY.

Nov. 3d.

THE principal called on me at recess bringing with him the mother of one of my largest girls. We had not before met. I knew by the smirk he tried to restrain as he introduced us that something was unusual in the call. As soon as the woman was seated beside me he bowed himself hastily away. Mrs. C. has seen some forty years, is of large stature and with an uncertain expression of countenance. I should never trust her honor or truth. Something tells me intuitively that her life is thoroughly wrong. She began quite a speech about my not knowing that I had "one very wonderful scholar in my school, a perfect genius." I informed her that I should like to know whom it might be. She replied, "*Why it's my Mary; I thought you didn't know it.*" "In what is she so gifted?" I asked. "In what? How very ignorant you must be not to have discovered before this! Why, she is a great mathematician, for one thing; her father spends an hour with her every night over her arithmetic, and it's wonderful how she learns after he has worked out all the examples on the slate. She then repeats them all off." I knew Mary had a retentive memory and caught an explanation very quickly.

"Is it in this particular you consider her a genius?" I asked.

"Dear, no! she is just as bright in everything else; her spelling and all her lessons are just as readily learned; and then she is so quick at doing ingenious things." "That is encouraging to you," I replied; "but pupils that are taught independence in thought become by it the best and strongest."

She turned upon me like a viper. "I knew you were no teacher at all—not fit for *my Mary* to have, anyway. I wonder the school-board keeps you in so long; they say you can whiffle the board around by a word."

I made no reply. The scholars had by this time come in from recess. I was so taken off my guard by astonishment at such an unjust charge that I turned deadly pale; my assistant came to me and put her arm around me and led me to an open window. It was but for a moment; then I called the classes as usual. I kept trying to think *how* I had wrongly influenced the school-board, even while I was giving my best explanations, and decided that the charge was wholly unfounded. I felt insulted on my own ground, and without just cause, and resolved, however I might feel about it, that I would treat the visitor handsomely and never refer to it to her

damage. It would be a good discipline to my naturally hasty temper and give it a rebuff that might help me in the future. So I graciously answered her further questions, entertained her with pictures from my desk, and hoped I had about done with her. But no, she was gaining fresh courage to hit me again.

"I came in on an errand," she began; "can't you keep the classes away while I talk?" I sent one class to the recitation-room and gave mine five minutes to study—she launched in, "I want *you*, in consideration of my Mary's talents and her father's being a member of the school-board (he was only the hired accountant); to promote her and set her above her mates when you have visitors, that everybody may see what a wonderful girl she is" Just then the class occupied the seats before us. "What have they come for," she asked; "just to listen to what I have to say?" "The five minutes are up," I answered, and began the lesson. Questions were answered readily until it came to Mary. She, poor child, though usually well-posted, blundered sadly. Supposing it *embarrassment*, I passed on to the next as if not noticing, to cover it, expecting at last to make it all right. My pupils had many times understood that where it was not *neglect* of duty on their part there would not be disgrace, but kindly help to lift them afterward over the difficulty. This applied only when just such cases of failure came up before visitors. Mrs. C. touched my elbow, "You *must excuse her*," she said, "for her father was out of town last night, and I couldn't help her."

"Children should learn self-dependence," I replied, glad of the opportunity to enforce a needed lesson to the mother. "She does not need help on so simple a lesson. Look at this long row of boys and girls. I'll warrant very few of them have had help."

"They have, I bet you."

I put the question to the class—how

many had received help on this lesson? But only one hand was raised. A girl had asked a sister to pronounce and define a word.

"What a silly teacher you are," the visitor put in. "I know better; they are a pack of liars, just wheedling you."

The boys caught the words and grew angry enough, but my smile reassured them and brought no reply. She left me to persecute the primary teacher in a similar way, after vainly endeavoring to persuade me to show up *her* Mattie on all the interesting occasions.

Miss A. was not so cordial, she returned her threats of expulsion from the school by inviting her visitor just to march out of the school-room, school-board or no school-board, and informed her that when her advice was needed she would call for it. I saw the rage the teacher was in when a few minutes afterward she marched with noisy tread the length of my room. When she had learned how I had been treated, too, she cooled off and went back to her work. This visit has spoiled two girls for all the rest of the term I fear. They are impudent and untruthful, and perverse generally. Miss A. won't bear it from her charge and has given her a severe whipping. I think the chastisement belongs to the mother instead. I have taken Mary kindly apart—she is naturally a pretty good girl—and showed her the nature of the trouble, and bidden her to be a good, womanly girl, and not to allow herself to be spoiled by her mother's mistaken ambition. It is not right to punish children for another person's sin, even if it be a mother.

L. R. DE WOLF.

Our ears, so ready, too, to list
 When dark reports begin.
 Could hear sad truths of self, no doubt,
 From a still, small voice within.
 And oh! our lips that help to crush
 The lives they still might win,
 Have all they well can do, God knows,
 To pray for strength within.

DECLINE OF POPULATION IN RURAL MASSACHUSETTS.—NO. 3.*

HAVING stated the appearances of such a decline, and having shown by statistics that these appearances are not misleading, it remains to treat of the cause or causes.

The human race is augmenting. Massachusetts as a State is gaining in inhabitants, and why should the country towns be losing in population? They once outnumbered in residents, the cities; now, they are outnumbered. What changed the balance?

The causes may be classified as the natural and the moral. For some forty years the country has been realizing the results of a railroad system. These follow the valleys, the banks of streams, and have their termini in cities and large places. They have been rivals of the old town centers, which were usually built on the hills. Along the line of these roads new villages have sprung up, changing the centers of population. Manufacturing, where it did not elect to depend upon water power, has moved into or toward the cities. Immigrants often prefer the larger place, and where they can associate with the greatest number of their own nation or class. The West has become a powerful competitor (and so has Canada), of the New England farmer in supplying New England markets. The hills naturally wash and lose some of their soil. The ash left from the burning of the primitive forest has all been taken up into grains and grasses. The roots of once great trees, which held up the turf of lower meadows, which fed a growth that made pretty good hay, have all rotted down. The ability to hoe, shovel, or do any heavy, severe work, has perhaps depreciated. The disposition certainly has. It would be easy to state other natural causes and to specify in details, as to how they had all operated to cause large places to become larger, making thinner at the same

time the residences of the hill, and the smaller towns.

Several papers have kindly noticed the series I am writing; among them *The New England Farmer*, of September 18, 1886, has an article so piquant and instructive, that I feel justified in bringing into it my own discussion:

"The story of the shield with two sides, over which an antiquated dispute arose, is frequently suggested by events in modern life. The latest reminder of it is in the last *Homestead*, which boxes the ears of Dr. Blackwell for saying:

'Our farm-houses are falling into decay, our cultivated fields are abandoned, our pastures are growing up in thickets. Farms can be bought for less than the cost of their stone walls. All over our breezy hills, from Martha's Vineyard to Berkshire, our vigorous, intelligent Yankee yeomanry are melting away like winter snowdrifts.'

"The paper quotes census statistics to prove that the value of the farms and farm buildings in New England is increasing, and advises the venerable doctor to post himself on the subject he is talking about, before he undertakes to run down New England agriculture.

"Now it is an indisputable fact that in some sections of New England the facts are very much as Dr. Blackwell states. The writer of this has taken many drives with older persons among the most enchanting scenery, the most fascinating hills and valleys, and has been shown great numbers of old 'cellar-holes,' and schoolhouses unoccupied or with only a few scholars, where 'there used to be from forty to sixty every winter when I was a boy.' Fields of young pines are also pointed out where 'I used to drive oxen to plough 'when a boy,' or where the former owner used to cut an annual crop of hay. A recent magazine article written by Rev. L. Holmes, of Charlton, Mass., says:

'Whether the pastor, the sportsman,

* See Aug. and Nov. Phren. Jour., 1886, for articles 1 and 2.

the physician, or anyone else is walking or driving about in one of these towns, he is constantly meeting clumps of trees that once manifestly surrounded a house, walls and pieces of fence that quietly bear the same tender testimony, entire excavations or partly-filled portions, or a piece of wall still standing; in respect to all of which the exclamation is made, "Another old cellar-hole!" The observer can see ungainly stretches, unsightly distances between houses, young forest trees growing on old furrows closed roads and others yet barely open, almost grown over. Although the primitive woods are gone, the tall trees leveled, a kind of scrubby growth is spreading wider and wider.'

'A middle-aged man may remember when, in his town, at the center, perchance, there was, for those days, a large and respectable hotel. The landlord could afford to provide amply for man and beast for election days, for weddings, for sojourners, for parties, and the coming of the thundering stage. Teachers were examined there, caucuses held, and sometimes the ordaining council met at that place. The public house has departed, or dwindled, in many cases, into a little miserable, rum-selling stand. For the four or six horses, a creaking wagon drawn by one horse suffices to carry the mail bags and passenger, should there be one.'

"But turn the shield. What says the other side? The census shows that New England agriculture is prosperous on the whole. The number of farms in twenty years has increased 3,200 and the value has increased \$104,500,000. The hay crop has increased 200,000 tons, the potato crop a million and a quarter of bushels, and the amount of butter 18,000,000 pounds. Market gardening has wonderfully developed through the springing up and prosperity of thousands of manufacturing villages.

"These contradictions are explained, partly due to the wonderful advance in labor-saving machines, by which one

man can do as much as ten could formerly, and partly to the more scientific methods which lead to more intense cultivation of smaller tracts. Dr. Loring says:

'The decadence of New England farming, therefore, means that the farmers of these six States have learned their business and understand what land to occupy, and what land to cultivate, and what to abandon and avoid. And while they have left their remote hillside homes for acres lying near the large towns and cities, they have by no means proclaimed that the earth has ceased to make a liberal return to the industrious and judicious husbandman in New England.'

"The villages have grown larger at the expense of many hill towns and places remote from railroads, which are indisputably on the retrograde. The half-truth, however, is as misleading as the falsehood. See both sides of the shield and know the whole truth."

Massachusetts has been comparatively becoming more and more a manufacturing State. It seems, that in twenty years the number of farms has increased only 3,200, which would amount to only an average of 160 per year. It is admitted that people have "left their remote hillside homes." The editor of the *Farmer* says: "It is an indisputable fact that in some sections of New England the facts are very much as Dr. Blackwell states." And further on, "The villages have grown larger at the expense of many hill towns and places remote from railroads, which are indisputably on the retrograde." We will remember his amiable and classic suggestion so well placed concerning the shield, yet turning it to see both sides we do not discover that he or Dr. Loring alter the dismal view I have been obliged to take, "of many hill towns," or any figures in Article 2.

2. Now I approach the closing part of my work, and more unwelcome than any preceding portion. In mere de-

scriptions of what appears to be fact, in arithmetical proofs, in setting down natural forces, we are not summoned to criticise. When we enter the moral realm, we may be obliged to say matters might have been better had human agency been employed at its best. Still, it is here we can do good, or, at least, manifest our affection and interest, the intensity of our desire to be useful. We will study brevity.

With the first change in the flow of population, why should not the suffering towns have excited themselves to counteract? Cities endeavor to make themselves attractive. They extend sidewalks, dig sewers, erect lamps, lay out parks, pave streets, patronize art, found asylums and hospitals, inaugurate magnificent supplies of water, and do many other things to serve and content the present inhabitants, increase fame and attract persons to come and dwell among them. The large villages, as far as they can, do likewise.

Behold these emaciated towns. They have intelligent and every way worthy citizens among them, possessing local patriotism and every virtue, deploring the desolation spreading around them, who certainly are not included in any deserved general censure. Nor are any held responsible by my reasoning for impossibilities. When we have done what we can we may nobly rest; not before. I believe a greater and still greater number will have eyes opened and hearts warmed to reglorify the dear old towns, now shrunk and shrinking. Such a work would indirectly benefit the large towns or cities.

These 142 towns need to be aroused to remove any taint of a bad name that may rest at all upon any of them. If accused of being penurious, or slow or dull, or quarrelsome, or obstinate; of cultivating infidelity and irreligion; of vexing teachers, annoying and starving ministers, murmuring against faithful town officers, neglecting the beautiful; of seeming too reticent, or squeamish, or

unforgiving, sullen, queer, whatever the accusation or insinuation, let it be investigated, admitted as far as true, if true at all, and the rest resented. We must not need to have people come from the city to tell us how pleasing are our landscapes, how salubrious our atmosphere, how pure is country milk, how desirable are fresh vegetables, how roomy the houses; of the native loveliness of the daughter, the manly figure of the son. We will know these things ourselves and appreciate them. We will welcome boarders to unoccupied rooms, and see that the matron of the country house has help enough. We will patronize the local paper, the teacher of music, the reading circle, village improvement; construct a swimming pool for boys, one for girls; arrange grottoes in groves, put handsome boats into ponds, build a good town-hall, invite lectures, and live full, rounded, commanding lives.

If any one, any son of the town revisits it, to see what memorial he may rear, what remembrance bestow, he is to be warmly greeted, frankly honored. Variety farming for these towns, the greatest variety feasible. Everything is to be raised that will grow in the climate. Farming, gardening, flower culture, all kinds of grain, earlier growths, later growths; cattle, sheep, swine, goats, and even donkeys shall receive the most fostering care. Let us grow wood, flax and hemp; put every old pasture on its best behavior, each swamp and muck hole. A farmer should live almost entirely from his own farm instead of the grocery store and apothecary shop. His wife need not be extremely anxious concerning the newest thing in millinery.

I have known a man come from a lower to a higher town for rest and health, and because the land was cheap, and after finding how Sunday was passed, how rum was sold, how odd and falsely independent some chose to render themselves, gather his family about him and flee back, much faster than Lot

went out of Sodom. Persons who drudge, drudge for money, are not likely to become very rich, or to enjoy what they have. Persons who can not overlook a misstep in another, forgive an unfortunate debtor or be animated only at another's expense, have not all the development they are capable of. Development, unfolding, reaching and rising toward perfection are the greatest affairs in country or city.

The farmer who would deny his family a team to attend church or singing-school, is not so near the kingdom of heaven as he ought to be. The farmer who makes the care of stock a constant excuse for not going where he is needed, while he is seen to be able to leave home when he pleases, is teaching others to render false excuses. The husbandman in quite comfortable circumstances who will not give more than ten dollars a year for religion and all other general causes, is not so public-spirited as he might be. The owner of a farm who takes advantage of his independence to be intractable, is discouraging good society. If the possessors of real estate in hill towns want property to rise, want new comers, let them advertise as they do in the West and Southwest; then hail those that come. A town can afford a small park just as well as a city can a common, or Uncle Sam a Yellowstone. Where nature has done so much, why should man be niggardly? Why should not farmers' children have ponies to ride?

Is the country, the special place where birds sing, where the sweetest odors float, to be solemn, strange, unsocial? The open sun-risings and sunsets are entrancing. Admire them, O ye children of the soil! Lift up your eyes at night to the unobstructed heavens. Consider yourselves collegians, students inevitably of botany, mineralogy, poetry, scientists, art-students. Talk enthusiastically of the loveliness of childhood, the beauty of woman, the ideals of youth, the worth of man, the lessons of history. Organ-

ize your neighborhoods into circles of endless attraction. Ye dwell among the head-springs of society. Beautify them. With you arise the rills which feed the cities. Let them be clear and brilliant. Put away excessive, relentless toil as a kind of blasphemy. It doth not enrich. Fathers on the hills! If any of you have minds so deficient in spirituality as to tend to atheism, I implore you not to whisper fundamental doubts to your sons. Cultivate faith, hope, cheerfulness. Find out all the advantages of your situation. Exert yourselves to detain, employ and charm the oncoming generation, to win back the absconding, to render your clear heights the holy places of delight to which abundance shall retire, where crowned success shall surely spend its last days, travelers love to saunter, philosophers walk, and the denizens of cities make the whole summer pilgrimage. Save choice productions for yourselves, your guests, and the home market; but of self-respect let it be no longer said, one must go to the city to get the best from the country. Humbly and truly glorify yourselves, your schools, your churches, your blessings, your advantages, and ye shall be glorified. Look after the health of your girls, conspire that they be suitably married, exalt home, honor motherhood; make not thy son a mere pack-horse. See that he may grow up a gentleman. He may apprehend both work and manners. He and his father should know how to assist in the house, as well as on the farm. Have all the papers and magazines and books you need. They do not tend to poverty. To raise the nicest stock is important, but to rear perfect men and women is sublime.

L. HOLMES.

One reality is worth a score of expectations. Daily hopes that, *ignis fatuus*-like, elude, are confusing and often entice us in false directions. Following in the steady light of a lesser star affords a fuller degree of satisfaction than all brilliant will-o'-the-wisp journeys.

Mrs. Oberholtzer.

FRESH AIR IN SCHOOLS.

SOME forty years ago I was for a time a school-officer in the city of New York and having been a sort of student of sanitary matters, I endeavored among other things to impress upon the teachers the importance of fresh air in their schoolrooms and its effect on the health of their scholars. The architect of the schoolhouses did not then consider the subject of ventilation in their new buildings, and if you mentioned it to them, to the trustees, or to the teachers, they would point to the windows and consider that a sufficient answer to any criticism you might make as to ventilation. In those days—is it much better now?—if you entered one of the public schoolhouses at, say, ten o'clock in the morning, especially of a still, dull day, you would immediately be met at the outside door and on the stairway, by as much pestilential atmosphere as you would be able to withstand, and if this were the case outside, what was it inside where teachers and scholars were at work, and where they must necessarily spend seven or eight hours out of twenty-four? In all the schools it was the custom then—is it now?—for the scholars to sit in the schoolroom at noon and eat their lunch *before* going down to the playground for a romp. I tried ineffectually in many cases to get the teachers to allow their scholars to go to their play—give them an opportunity to throw off the foul air from their lungs and get a fresh supply of oxygen—before eating lunch; but the teachers were afraid of interfering with their customary practice or were afraid their patrons would find fault with them. I finally persuaded one lady teacher, a little more independent than the rest, to try the experiment with her highest class—for one day only—and after promising several times to do it and neglecting it, she finally tried it and a revolution was wrought in the old practice in that school. I visited the school a few days after and immediately

on my entrance, the girls' faces in that class, as well as the teacher's, were illuminated with a welcoming smile. Taking my seat on the platform the teacher came up to thank me in her own name and on the part of her class for the lesson I had taught them; she said the girls were delighted with the change, that they enjoyed their lunches now as they never had before and that they all felt very grateful to me for making the suggestion. She also said she was so well-pleased with it that she was gradually adopting it for all her classes. I was in hopes the seed sown there might generate and bear fruit in other schools, but has it?

And in the evening schools, I have seen thirty and forty men and boys packed like herrings in a small classroom, all in their work clothes, more or less dirty, and all breathing over again the stuff they were exhaling from each other's lungs—rank poison. It was a question with me whether the price they were paying for the little knowledge which they would acquire under such circumstances was not more than it was worth.

In one of the bank parlors of the city I was once talking with the president on this subject, and the cashier, who was writing at his desk, jumped up and said, "Now I know what is the matter with my boys. I am sending them to a private school kept by a clergyman who has some eight or ten boys in all. The school room is a back parlor in a house on a twenty foot lot, and—necessarily small—with a stove in it, where the boys are kept from nine in the morning till three in the afternoon. When my boys come home, they look pale, have no appetite, complain of headache and sometimes have an attack of vomiting before they seem to get any relief, and now I know the reason." I sowed a little seed there, I think.

J. S. R.

Burlington, N. J.

JUDGMENT OF EYES.

“WHAT do you consider the most beautiful eyes?” was asked of an old gentleman who is known for his study of human nature.

“Well, they’re very scarce;” said the old gentleman, letting his eyes wander over the half-dozen faces before him. “Not one here has got the ideal eye. It’s a perfect violet or a velvet brown, as soft and gentle as a doe’s. Violet eyes are very rare. I don’t mean deep blue eyes, but genuine purple eyes. Babies have them sometimes, but I’ve seen only one or two women with them, and never a man. They denote too perfect a character for that—gentleness, intelligence, devotion and boundless faith. These virtues aren’t often found in one person.

“Brown eyes? Yes, they are plentiful, and physically, perhaps, the most beautiful eyes in the world. I think they come next to violet eyes when they are light enough to read feeling in them. Dark brown eyes are too deep. They seldom mirror the heart feelings, but are fine to look at.”

“Gray eyes are the most common in the world; so what in general do they characterize in the opinion of the eye-ologist?” asked a youth with a pair of blue-gray eyes.

“Well, there are a hundred different kind of gray eyes, you know,” said the old gentleman, “Yours are one kind and mine another. People haven’t be-

come advanced enough to have more than four or five colors to apply to eyes; so any that are not blue, or black, or brown, or hazel, are called gray. You seldom see a real stupid person with gray eyes; but the genuine gray—that is always found among highly intellectual people. Steel-gray eyes with large pupils denote intense feeling; blue-gray eyes are generally among people with kindly hearts. You never find a real mean spirit behind a pair of blue-gray eyes.

“I’ve made a study of real blue eyes,” he continued. “They denote quickness of thought, and generally fine physical development, when they are large and bright. About nine-tenths of our engineers, railroad brakemen, light-house-keepers, policemen, cadets, and army and navy officers, and many others selected for physical perfection, have blue eyes. Very few blue-eyed people are color-blind or near-sighted.

“Hazel eyes denote musical ability and grace of person. They are very pretty eyes, too, and then there are real green eyes. They are not so scarce as is generally supposed, but I haven’t made a close study of them, or of yellow eyes either. I hear the latter are very fashionable, but I shouldn’t imagine a yellow-eyed person would have a nice disposition,” because they are more or less indicative of bald-head.

IS LIFE WORTH LIVING.

“Is life worth living?” Ask of him
Who toils both day and night
To make a little home for those
So dear unto his sight.

“Is life worth living?” Ask of her
Who, crowned with widow’s weeds
Doth find supremest happiness
In kind and noble deeds.

“Is life worth living?” Ask again
Of those whose highest aim
Is to assist their fellow man,
Without one thought of fame.

“Is life worth living?” Ah, dear friend!
Let these good people tell:
A better question far is this—
“Is life worth living well?”



ANIMAL MAGNETISM AS A CURATIVE FORCE.

I DO not like the term "hypnotism," and hence use the old name. I will relate an experience in my own family, in which this marvellous force, used for a holy purpose, with faith in its wholesomeness, all in the strong tide of maternal affection, worked its wonderful efficiency. Here, let me say, that inasmuch as it is a power for good, it is doubtless also a power for evil when exercised for an evil purpose. Simple-hearted Fredrika Bremer, in her story of Nina, makes the strong, observant Edna detect an evil exercise of the kind upon the gentle, innocent Nina, and she drives the guilty, traitorous man from her presence as a reptile that he was. Hundreds of impressionable girls succumb to an influence they are powerless to resist.

My son Alvin, something like twelve years old, was rejoicing in the din of powder, so dear to the boy on the Fourth of July. He had made what he designed for a burning mountain of wet powder, and having applied a match to ignite it without effect, he poured dry powder from a flask he held in his hand, but some little spark was latent in the heap, which exploded, and ignited the flask as well. The result was terrible, and the hand was dreadfully shattered. I lifted him upon the bed, and while waiting for a physician in the neighborhood, cast aside all my distressed selfism

and proceeded to make the magnetic passes. Soon Dr. Livingston appeared, and examined the hand. "I must remove one, if not two of the fingers," he said. "No--no, doctor," I cried, "don't do it; splinter them up, they can be saved; I am sure they can."

The doctor, examined the patient, eyes and pulse, and asked, "Is he asleep?"

"Oh, yes, he will not cry or move; do not fear."

"Can you keep him as he is?"

"Certainly, all his pain is soothed as you see."

The doctor, proceeded to dress the wounded hand, more than once commenting on his apparent freedom from pain, and with tender thoughtfulness helped me put him into bed.

I prepared myself for long nights of watching. The weather was very hot, and the good, faithful doctor, by his gentle, unremitting attention, suggested a fear of the worst. I never left the poor boy, not even an hour. I soothed the restlessness of pain and fever, by repeating the magnetic power which never failed of their effect. The tips of the fingers were just visible under the bandages, and I resorted to a process of my own to avoid gangrene, by many times in an hour touching them with a solution of salt and vinegar. At first my heart sank within me to see them black and puffed,

but at length this grew to be less apparent.

In all my care and watching I was faithfully attended by my good, devoted Bridget, who could hardly be persuaded to leave me to my anxious watching. Ah! there is nothing finer or sweeter than an Irish heart. No sacrifice is too great to be made where its affections are enlisted.

One night Alvin was more restless than ordinary, his head burning hot, and his throat dry from thirst, and the feet grew cold. Bridget seeing this took them in her warm, generous, Irish hands while I soothed him with magnetism, when, to my utter horror, in that dark midnight, I saw her fall upon the floor in strong convulsions. I made no outcry, but simply laid my hand upon her head, and with impulsive prayers to God, and tender words to her, soon saw her open her eyes, and recover.

We are wonderfully and mysteriously made. After long, long effort, of days if not weeks, the black tips of the wounded fingers put on a faint tinge of red—and the discolored blood escaped by the bandages. This was followed by the first signs of amendment.

I shall never forget the pleasure the doctor evinced, as the case tended to recovery, and his joy when, upon removing the bandage, the hand, presented little blemish—no stiffness of joint, or loss of function.

Then comes of course, a bill for such faithful, tender service, which bill was never presented; and when I named it, the reply was in character with the preceding goodness:

“There is no bill, madam—I have been learning. This is the first exhibition of magnetic force I ever witnessed, and I am more than repaid.”

This subtle force is a help and blessing to every rightly constituted mother. A child, restless from teething may be soothed to sleep by it—and in its unconscious struggle for life, and growth and comfort, many a period of irritation is involved, which may be banished by

this simple process. Much of the discordant and tiresome experiences of the nursery may be made to give way to this healing process, provided the mother has the self-control requisite for the purpose.

My heart has ached to see a child screaming—purple in the face, under the ill-magnetic nervousness of a mother who had not learned this divine process. Many and many a time has such a mother brought her child to me, saying, “Just lay your hand upon it, and it will be still,” and assuredly it would settle down to infantile sweetness.

Mothers do not half understand the full functions of maternity, if they do not spontaneously resort to this healing process. A gentle pressure over the eyes, a soft, warm hand passed down the spinal column, the little foot or hand tenderly held are of magic power. Often what is called “temper,” a violent and unnatural shrieking about little hindrances may be allayed by this almost marvellous force, and thus the child be saved from many an after year of violence.

Every person has more or less of this magnetism—not always wholesome in kind; and much of the experience in households may be traced to the good or ill magnetic quality of its inmates; hence, the propriety of separate beds, and the reasons why some persons, can never be together without a quarrel.

Many of the charges of sorcery and witchcraft may be traced to this, at the time, unknown element. Pitiful as the history of the Salem witchcraft is it was not all fraud, nor all a delusion; the unhappy Paris children, bred in the gloom of a pathless wilderness, were without doubt most sensitive to what seemed malignant influence to them, and in the presence of certain persons felt as if pins and needles were being thrust into them. I am sensitive in the same way; but fortunately have been able to master it. Mrs. Horace Greeley, who held conventional rules in con-

tempt, was known more than once to spring from her seat and take one the opposite site of the room, exclaiming as she did so, "I can't sit near you---your sphere is disagreeable to me."

Women of large brain are apt to be suspected of a malign power, by their weaker and more superstitious neighbors. It is well-known that some persons go out of the body, as it were, and become visible to persons at a distance; and so well-established is this fact, that a theory of a stellar body has gained ground. I am strongly leaning toward what is known as spiritualism, and but for a certain cowardice and reverence should give some considerable time to it. It may be that those of a decided magnetic organization are gifted, also, with the power of "discussing spirits."

Not long since, after going to my room, locking the door as usual, I saw one of my sons, whom I had left reading in a room below, enter my room, and turn to the open door leading to the room in which his daughters slept. "They are asleep---and D. is better," I said, supposing he was uneasy at a slight indisposition of the latter. He made no reply, but went across the room and looked out of the window. Surprised at this silence I jumped out of bed, and laid my hand on his arm. There was nothing tangible there.

Going to the hall the door was locked. Then I went down the stairs to find him reading as I had left him early in the evening.

This is not an unusual experience, I apprehend, and the appearance of this *Simulacrum* or stellar body may have given rise to many a tragedy of sorcery and witchcraft.

It is well-known that Kepler, in the midst of his profound studies and discoveries, was for seven years using all the influence which his character and his great learning commanded to save his nobly endowed mother from being burned at the stake as a witch. Great

intellect has its magnetism---as witness the power of Iago over the credulous Moor; and again that of the cruel Philip II. over poor, sinister, wicked Mary of England.

Some persons have so strong and sullen a magnetism of the earth earthly, that they gather the atoms of earth about them and "walk" when they ought to be quietly sleeping in their graves. Now such persons are strongly magnetic---but not of a wholesome kind. Let those of an ill-regulated life and strong passions forbear to use this Divine force of magnetism---and those who possess this power accept it with reverence, if not with a holy fear; for they do, for the time being, absorb the soul of another into themselves; they hold the issues of life in abeyance, and are as it were, gods.

What newspaper reporters and inferior novelists dignify with the name of love, is nothing less than this animal force misdirected. Were my subject one to justify a moral, I would warn my sex against an influence which may be Divine and may be devilish.

ELIZABETH OAKES SMITH.

THE INHERITANCE OF BLINDNESS. — In the *British Medical Journal* a contributor, Mr. Snell, gives the result of certain investigations undertaken to ascertain the influence upon offspring of the marriage of blind people. In every instance, to inquiries as to sight and the formation of the eyes of the children, he was assured that the vision was perfect and the ocular condition normal. A similar answer was returned to questions respecting hearing and bodily deformities. The latter were absent and hearing was always stated to be good.

These results are somewhat at variance with those recorded by other observers. Magnus investigated fourteen instances of married couples in whom one or both were born blind, or became

blind at an early age, and found that, out of thirty-four children begotten of these marriages eight, 23.5 per cent., were either blind or weak sighted. He mentions, moreover, that a man who had lost his sight by inflammation immediately after birth, had two children affected with undeveloped eyes. Fuchs states that he was acquainted with a physician who had congenital atrophy of the right eye, and whose father had lost an eye by irido-cyclitis when a child. He says, also, that the connection of the eye-disease between father and child is indubitable, for Deutchmann obtained analogous results in his experiments on animals.

The author gives in tabular form the facts regarding the various families, sixteen in number, in which his inquiries were made. He admits that the numbers are too small to be anything else than an instalment to an interesting inquiry. Another point will hardly escape notice, and that is the small proportion of births. The experience of managers of blind institutions is that

the workers are very much disposed to wedlock, and this notwithstanding that, in consequence of the small wages they can earn, marriage is much discouraged.

Of these couples who were both blind, after excluding the recently married, there are three, and only one has children (two). One young man has had two blind wives, and neither has borne children to live; triplets by the first wife died immediately after birth. There are ten men with sighted wives, and, excluding one whose wife had ceased to bear children before his blindness came on, there are left nine with twenty-six children between them, or less than three per family. Adding to this number the three blind couples with two children, there are a total of twelve, with twenty-eight children, or two and one-third per family. It would almost seem, therefore, that, though prone to marry, such marriages are less than usually fruitful. Farr placed the number of children per wife in England at 5.2.

CANCER.

THE popular dread of this disease is sufficiently well-founded, and I am far from regarding it as a medical bugbear; yet it seems to me that a proper view of its nature, and such precautions as are adapted to the constitutional state that is supposed to precede and accompany the disease, would be conducive to its cure in very many cases. Physiologists are disposed to consider cancer an obscure affection, and like all obscure affections, if treated at all, the procedure must be thorough; hence it is that many of the most eminent look to surgery as affording the best means of treatment.

The parts most frequently invaded are the secreting glands and mucous surfaces; in women the breast and

uterus are usually the seat of disease, while in men the mouth, lips, stomach, and liver are more often subject to it than other organs. Here, I think, we have a suggestion that may guide us to a true solution of the origin of cancer in most cases. Whatever in the life and habits of a person contributes to permanent inflammation in a part may, with favoring conditions of place, employment, surroundings, produce the malignant cell or neoplasm that slowly or rapidly converts healthy tissue into foul and poisonous substance.

Causes.—Among the exciting causes of cancer there may be enumerated a low condition of the bodily functions; with its accompaniment of a poor circulation, a poor, innutritious diet, pas-

sional excitements, morbid anxieties occasioned by business or domestic trouble ; the stoppage of natural discharges, especially those habitual to women, and unnatural discharges, such as those from piles or abscesses. Besides these, causes of a more *local* character may be mentioned—such as blows, excessive pressure, tight-lacing, the use of tobacco, especially in smoking, and other irritant things ; eating high seasonings habitually, like mustard, ginger, curry, etc. The idea that mental worry may be a cause has grown stronger of late, the case of Mr. John Roach, the shipbuilder, being regarded as a salient example.

French and English physicians condemn tobacco as a cause of most cases of cancer of the mouth and tongue, the increase of the number of applicants for treatment being associated with the prevalence of smoking, especially cigarette-smoking, which exposes the mouth to direct contact with the poisonous constituents of the tobacco and other substances used in cigarette manufacture. Living in a low, damp quarter, especially of a city, is regarded by some as a cause. London is said to be one of the most healthful cities in the world, so far as a low rate of mortality can show, yet it has the highest fatality from cancer, which is attributed to its foggy and damp atmosphere.

The cancer germ, some say, may remain in the system for years, as an inherited taint, and not make its appearance until a blow on the face or elsewhere produces a local expression.

A large proportion of fatal cases that come under the eye of the physician to-day are the results of carelessness or neglect on the part of the sufferer. An injury to a soft part, like the female breast, has been received, and even the simplest treatment has not been thought necessary ; a local inflammation has been permitted to exist for months and years, and because it gave little inconvenience, scarcely any attention was

paid to it, until the virulent growth had firmly established itself, and poisoned the system. Two of the writer's friends come in this category of neglect, one of whom is dead, and the other is rapidly sinking under the drain made upon her vitality by the disease. In both of these cases the growing disorder was attributed to functional weaknesses, often experienced by a woman, and delicacy had much to do with the failure to consult a physician, until it was too late. Many tumors that develop in the breast and give occasion for alarm are not cancerous, and may be cured by simple means ; but generally any obscure growth in a gland, that is hard or soft, accompanied with tenderness or pain, should be examined by a physician, as soon after its discovery as possible.

Symptoms.—A description of cancer may be given in the following terms: A growth that is scarcely noticeable at first, especially if it be of the hard or *schirrus* variety. At length the skin changes to a red or livid appearance and the state of the tumor from an indolent to a painful one. The development may be very slow, but the constant progress that a cancerous tumor shows is one of the indications of its character. If there be a peculiar burning, shooting pain, and the skin have a dusky, purple hue, with a puckered appearance, it is likely that the tumor is malignant, and a microscopic examination of the diseased tissues will reveal the cancer-cell. A hard tumor located in the breast may lie there for years apparently without change, and without occasioning uneasiness, and finally begin to grow, become very painful and soon threaten life. A breast cancer has a knotty, lobulated surface, with obstructed glands, and a sunken nipple with enlarged veins ramifying through the tissue, not unlike a crab's legs. It is the appearance of these veins that led the ancients to name the disease *carcinus*, which means a crab.

Cancer of the stomach may follow a

blow upon the epigastrium or long-continued excesses in eating and drinking. Hereditary predisposition has much to do with its development in the majority of instances, although it is in general a disease of advanced life. Beginning with uneasiness, eructations, heartburn, vomiting and other symptoms that accompany indigestion, it may not be suspected for a long time by the patient, and the diagnosis be far from positive. After a time the signs become marked and, besides those of indigestion, there is more or less vomiting of dark-colored matter resembling coffee-grounds, or chocolate. Severe shooting pains are felt in the back and loins; such pains being much increased after eating, and food taken into the stomach may so irritate the inflamed coats that it is at once thrown out. When a hard tumor can be felt, which changes its position according as the stomach is empty or contains food, and it is painful on pressure, then the fact is determined beyond doubt. The site of the morbid growth is traceable by indications that would occupy too much space by their recital here; the parts, however, usually attacked are the lower and upper openings of the stomach.

Treatment.—As intimated in the beginning of this article, we believe in the curability of cancerous affections. Given time enough, with such facilities as hygiene now commands, no case should be discouraging. Taken in its early stages the malignant growth, even in a case of constitutional predisposition may be arrested. This is said, we know, at the risk of an indictment for quackery by a large and respectable class in the medical profession, but it is said because our personal observation warrants it, and not because we share the tendency of the hygienic school to regard no disease as necessarily fatal. In our cities most of the cases of malignant or benign tumors are treated surgically, and surgeons appear to think that when a tumor has been removed and the

patient entirely recovers, it is a demonstration that the abnormal development was not cancerous. The eminent Dr. Gross says in his "Surgery": "The science of the nineteenth century must confess, with shame and confusion, its utter inability to offer even any rational suggestion for the relief of this class of affections."

Doctor Patterson, Sir James Paget, Druitt, Mayo, and other authors, furnish similar testimony on the side of the knife. Paget in reviewal of an experience scarcely exceeded by any other British surgeon, says, he is "not aware of a single case of recovery; and as to the influence of an operation in prolonging life, I believe that the removal of the local disease makes no material difference in the average duration of life."

But from another source we have a different expression of opinion, founded too, on the evidences of professional observation, and to which impartiality and candor direct attention. Professor Helmhuth, in his recent treatise on surgery, writes: "Even our opponents cannot deny that instances have occurred in which well-authenticated cases of cancer have been cured by the properly selected homœopathic remedy. We do not pretend to assert that *all* malignant tumors are amenable to internal medication; but we do claim that in nearly every instance the sufferings can be mitigated, and in some cases a radical cure effected."

If, as some claim, cancer is a local disease due to irritation or injury, although the patient may have the cancerous *diathesis*, its early treatment should be remedial. The disease should be attacked locally by such applications as may operate best for the stoppage of the development of the peculiar organism that breaks down and destroys healthy tissue, and the patient should eat such food, and live in every respect, so that his vital functions shall be as nearly perfect in their action as possible, and his blood be pure.

The early application of the knife, or caustic, or acid, or galvanic battery may remove or destroy the cancer, but a cure by surgical methods is confessedly so rare, but twelve or fifteen per cent under the most favorable circumstances, that the relief to be expected from such means by the average patient is but temporary. Dr. Paine, a homoeopathist like Prof. Helmuth, believes that his experience warrants him in saying that by the use of a combination of the iodide and carbonate of lime in the small doses of his school, fully fifty per cent. of the cases of schirrus of the breast would be cured, "if the treatment can be instituted early," which means before the disease has become constitutional.

Soft cancers of the *encephaloid* (brain-like) and *colloid* (jelly-like) forms, are more rapid in their development than those of the schirrus variety; but, if treated early, as good results may be expected as in the early treatment of the hard forms. The rapid growth of soft cancers is due to the penetration of the healthy tissue by the malignant fluids of the tumor, so that in a short time the border of the diseased nucleus is lost in the infiltrated and inflamed flesh surrounding it.

All the precautions for the development or removal of any morbid taint, hereditary or acquired should be taken. Proper bathing, out-of-door exercise, healthful dress, nutritious food are essential particulars. As regards the last, care should be exercised in selecting articles that are not only easy of assimilation but do not excite or heat. Hence, the vegetarian dietary is valuable to the patient. Dr. Lambe has shown with much clearness the benign effects of vegetable food and pure soft water in mitigating the disease, and Dr. Shew is of opinion that such a diet in moderation is preferable to surgical interference. The poisonous cells or germs of the tumor may be neutralized or destroyed by antiseptic lotions. Galvanism, in some cases applied locally, is helpful

in reducing inflammation. A correspondent of the writer, Dr. E. G. Cook, of Detroit, Michigan, mentioned in a letter written a year ago the successful treatment of two cases of uterine tumor, in one of which the growth had attained alarming size. The diet prescribed was strict in its prohibition of articles containing an excess of starch; while the treatment otherwise had for its object the prevention of blood poison.

Five years ago the writer became interested in a method of treating tumors that was discovered by a physician of prominence in Brooklyn, N. Y., and its success in several cases of tumors that were regarded as malignant, led him to announce it to the readers of the *PHRENOLOGICAL*, with the result of application from two or three for trial of the treatment. I am informed that in a case of schirrus of the breast the effect was beyond expectation, as the growth was considerable, and three years have passed since its removal, with no reappearance to awaken apprehension in the patient. No knife is used but merely a preparation of wood-sorrel or the *oxalis acetosella*, which is applied to the tumor, and operates as a mild caustic, destroying gradually the outer borders of the abnormal growth, and in most instances occasioning little pain, until the mass of the canceroid or epithelial ulcer is detached from the adjacent tissue. In connection with the local application the purest and most nutritious diet is advised, and the patient warned against all depressing influences that may arise from personal or social habits. H. S. D.

THE ALCOHOLIC RED NOSE.—The *Church of England Temperance Chronicle* states that the following appeared among the miscellaneous advertisements in a recent issue of the *Irish Times*: "How to change the color of an Alcoholic Red Nose.—Recipe, which is effectual in nine cases out of ten, may be had by sending postal order for 10s. to 'K,' 738, this office." There is a very watchful

worker in Dublin in the person of Mr. T. Wilson Fair, the energetic Honorable Secretary of the Dublin Total Abstinence Society. So it is not a matter for surprise that the quaint advertisement above quoted was immediately followed by this: "How to Change the Color of

an Alcoholic Red Nose.—Don't waste 10s. Call over to the Coffee Palace, 6 Townsend street, and in 99 cases out of 100, if you sign the pledge and keep it, your nose will assume its natural shape and color.—Alcoholic Red Nose Curing, 6 Townsend street, Dublin."

A YOUNG ANALYST ON ADULTERATIONS.

A WRITER in *Chambers's Journal* illustrates in a lively, taking style the tendencies of adulteration. Having given his son a course in chemistry and provided the apparatus he finds his ambitious provings an unending source of trouble to the family. One day, showing the slides of his microscopic outfit to his father, and among them a section of a frog's leg and a piece of a diseased potato, the old gentleman wants to know what practical beauty frogs' legs and diseased potatoes have.

"I can't say we do much in frog's legs," he said, "but there are lots of things adulterated with potato. Flour and arrow-root, and butter and cocoa, and—and—a heap of things. And the potato's just as likely to be diseased as not. It may be, anyhow, and there you are! If you don't know what diseased potato looks like, you're done."

"A pleasant lookout," I replied, "if half a dozen of the commonest articles of food are habitually adulterated."

"Bless you, that's nothing," he replied. "If that was all, there wouldn't be much harm done. There are a jolly sight worse adulterations than that. In fact, pretty nearly everything's adulterated and some of 'em with rank poisons."

"Rank poisons! That's manslaughter!"

"Oh no; it isn't," he calmly rejoined. "Of course they don't put in enough to kill you right off. And if you find something disagreeing with you, you can't swear what it is. It may be the nux-vomica in the beer; but it is just as likely to be entozoa in the water, or

copper in the last bottle of pickles. However, you're all right now. With an analyst in the family, at any rate you sha'n't be poisoned without knowing it. I'll let you know what you are eating and drinking. This fellow—" and he patted the microscope affectionately—"will tell you all about it."

And it did. From that day forth I have never enjoyed a meal, and I never expect to do so again. I have always been particular to deal at respectable establishments, and to pay a fair price, in the hope of insuring a good article. I have, or had, a very tolerable appetite, and till that dreadful microscope came into the house I used to get a good deal of enjoyment out of life. But now all is changed. My analyst began by undermining my faith in our baker. Now, if there was one of our tradesmen in whom, more than another, I had confidence, it was the baker, who supplied what seemed to me a good, solid, satisfying article, with no nonsense about it. But one day, shortly after the conversation I have recorded, my analyst remarked at breakfast time: "We had a turn at bread yesterday at the laboratory—examined five samples, and found three of 'em adulterated. And do you know"—holding up a piece of our own bread and smelling it critically—"I rather fancy this of ours is rather dicky."

"Nonsense!" I cried, "it's very good bread—capital bread!"

"You may think so," he continued, calmly, "but you are not an analyst. I shall take a sample of this to the labora-

tory, and you shall have my report upon it."

"Take it, by all means. But if you find anything wrong about that bread I'll eat my hat."

"Better not make rash promises. I'll take a good big sample, and you shall have my report on it to-night."

On his return home in the evening he began: "I've been having a go-in at your bread. It's not pure, of course; but there isn't very much the matter with it. There's a little potato and a little rice and a little alum; and with those additions it takes up a great deal more water than it ought, so you don't get your proper weight."

"Ahem!" I said, "If that's the case we'll change our baker. I'm not going to pay for a mixture of potatoes and water and call it bread. But as for alum, that's all nonsense. If they put that in we should taste it."

"Oh, no, you wouldn't. When alum is put in bread it decomposes and forms sulphate of potash, an aperient salt. It disagrees with you, of course, but you don't taste it. As for changing your baker, the next fellow you tried might be a jolly sight worse; he might put in bone-dust, or plaster of Paris, or sulphate of copper. And besides, half the adulterations are in the flour already before it reaches the baker. Of course that doesn't prevent his doing a little more on his own account."

And with that the matter dropped, so far as the bread was concerned; but my confidence was rudely shaken.

* * * * *

I had again put my foot down. But it was too late. I had even forbidden my analyst, under penalty of forfeiture of his pocket money for several months to come, telling us anything whatever about the food we eat or the drink we imbibe; but the mischief was done. I have lost my confidence in my fellow-man, and still more in my fellowman's productions. I may try, in an imperfect way, to protect our household. I may

give the strictest orders that none but the refinedest of sugar shall be admitted into our store cupboard; but who is to answer for the man who makes the jam and the marmalade, or the other man who makes the Madeira cakes and the three-cornered tarts? And how much is there that we have not heard? I have silenced my analyst's lips, it is true; but there is also a language of the eyes, and still more a language of the nose, and when, with a scornful tip-tilt of the latter, he says, "No, thank you," to anything, my appetite is destroyed for that meal. I can't take a pill or black draught without my disordered imagination picturing my chemist "pestling a poisoned poison" behind his counter. I can't even eat a new-laid egg or crack a nut without wondering what it is adulterated with. This is morbid, no doubt. I am quite aware that it is morbid, but I can't help it. I am like Governor Sancho in the island of Baratania; my choicest dishes are whisked away from me—or rendered nauseous, which is as bad—at the bidding of a grim being, who calls himself Analytic Science. He may not know anything about it, or he may be lying; but meanwhile he has spoiled my appetite, and the dish may go away untasted for me.

Truly, a little knowledge is a dangerous thing. The moral of my painful story is obvious. I intend to bring up the rest of my family, if possible, to occupations involving no knowledge whatever.



THE ARMY OF PHYSICIANS.—In a recent directory of the physicians of the United States the total number is given as 85,671, of whom 83,239 are males and 2,432 females. This makes the ratio of physicians to population about one in 650, allowing for the increase in population since the last United States census. Maryland is the most crowded State, having but 329 people for each physician. Other crowded States are Colorado, 341; Indiana, 396; Oregon, 353. All the re-

maining States are above 400. New Mexico has relatively fewer physicians than any other State or Territory, with 1,494 people to each medical man. The other States and Territories coming above 1,000 are Utah, 1,035; North Carolina, 1,029; South Carolina, 1,084. Ohio

has 502 and Kentucky, 551. There are relatively more physicians in Ohio than in either Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey or Pennsylvania, and more on the Pacific Coast than on the Atlantic.

NATURAL LAWS AND MIRACLES.

BELIEVERS in the supremacy of natural law affirm that it is impossible that the "Great First Cause," or "The Great Unknown" (whichever they may prefer to call it or him) can change the action of natural law in any given case, and that, were it possible, the idea of a Supreme Being so far finite as ever to find it necessary to suspend the action of His own laws, is simply absurd. On the other hand, believers in revealed religion, in view of the Bible record of miracles, claim that it is ridiculous to suppose a God who is a slave to his own laws, that he has the power, and exercises the right, to suspend and nullify at will. While it is not possible that both parties are right, is it not probable that both are wrong?

The force of electricity and the laws governing the movements of electrical currents have doubtless been existent since the universe was formed, but this mysterious and subtle force and its adaptability to human needs, had not been discovered until these late days. Is it then unreasonable to suppose that there exist spiritual laws or forces, of which, in the limited condition of our knowledge we are unable to conceive, which being acted upon by a superior intelligence would produce what we call miracles without any violation of what we call natural laws?

The boy tosses the ball upward, and when, through the action of the laws of gravitation, it has descended to within a few feet of the ground he catches it. No one will claim that the law of gravitation is violated or annulled by the re-

sult; it is simply the interposition of intelligent force. And what more reasonable than to infer that the Divine intelligence so exercises His power in shaping the results of the action of His laws?

We drive our ships against the wind; we ascend into the air in spite of the law of gravitation: we calm the waters about a ship through the use of oil, and all without violating any law. Must we then say that, in order to the performance of miracles, God must exercise the despotic power of annulling His own laws? Or, need we fly to the other extreme and say that all miracles are impossibilities because in their mode of action they are beyond our limited knowledge of law?

Nay, we force the steam to do our will; we bid the lightning carry our messages; we light our houses and streets with an intangible element, and it but shows our knowledge and application of the forces of nature. So the Divine, having all intelligence and all power, causes the laws that He has ordained to do His will; and the miracles that have created so much discussion are no more in opposition to law than are the great inventions of the age.

JAMES PERRIGO.

Patiently, patiently, day by day,
The artist toils at his task away;
Touching it here and giving it there
A line more soft, or a hue more fair:
Till, little by little, the picture grows,
And at last the cold dull canvas glows
With life and beauty, and forms of grace
That ever more in the world have place.

NOTES IN SCIENCE AND INDUSTRY.

Taste and Smell—Their Interference.—Scientific men inform us that we can distinguish only some six varieties of substances by taste. These are the bitter, sour, sweet, saline, alkaline, and metallic. Others enumerate simply the sweets and bitters, acids and salines as the four varieties of savors we are able to distinguish.

The rapidity with which different substances may be perceived and appreciated by the sense of taste varies greatly. For example, salt ranks highest on the list. It can be tasted in 0.17 of a second after its application. Quinine, on the other hand, with a much more persistent flavor, requires 0.258 of a second for its appreciation by taste. The salt taste is often a negative one as regards enjoyment of food. We know it rather by its absence than by its presence. Sours and sweets come certainly within the range of taste, but as regards gastronomy it is really very difficult to urge that the savors play a high part in enhancing our dainties.

We have acquired a habit of referring every sensation about the mouth to taste, whereas, in reality, smell has more to do with the matter than is really believed. Even in the case of sweets and sours, it can hardly be denied that these are to be distinguished more by a combination of smell, taste and touch than by taste alone. Again, we discriminate degrees of sourness by smell in a ready fashion, and such degrees may be tested and distinguished by the more delicate smell when taste lags woefully behind in the work of discrimination. Perchance it is the pure sweet savor that taste has the right to assume as its special province. Yet, as has been pointed out, "lengthened sweetness long drawn out" will soon weary the palate unless it is linked to some other flavor in the distinction of which smell may play a part. Children will weary of plain sugar, while the flavored candy attracts them more powerfully; and this is a proof of the argument that it is to smell, and to its aid in tasting, that the higher sense of gratification is due.

The Mystery of Magic Mirrors Explained.—The famous magic mirrors of Japan and China are circular in form, from three to twelve inches in diameter, with a thick rim around the edge. They are made from a composition of copper and tin, the reflecting surface being more or less convex. On the back are raised designs—birds, flowers, dragons, geometric patterns, or Japanese scenes and myths—and the magical property lies in the fact, that when the rays of the sun are reflected from the polished face on a wall or screen the figures are plainly visible in bright lines on a darker ground, though the back of the mirror is entirely hidden from the light. For many centuries, attempts at explanation have been made, but it has remained for Messrs Ayrton & Perry, English electricians, to demonstrate the real cause of the curious phenomenon. Their tests have shown that in the convexing process the thinner parts of the mirror become slightly more rounded than the thicker—a tendency which is increased by an expansive action of the polishing mixture—and this gives an imperceptible irregularity to the surface which becomes apparent in the reflection.

Eight Conclusions About Potatoes.—"After many years of experimenting," says Mr. E. Hersey, "I have reached eight conclusions: 1. Whole potatoes will produce a crop a week or ten days earlier than those which are divided. 2. Small, whole potatoes will produce results as good, if not better, than large ones. 3. The seed end is the better one to plant, because it starts with more vigor and produces more and larger potatoes. 4. A large piece is better, on ordinary soil, than small pieces or eyes. 5. Potatoes with sprouts long enough to break off in planting are not so good as those with eyes advanced just enough to indicate vigor. 6. The form can not, as a rule, be changed by planting any particular form. 7. Two distinct varieties won't mix in the same hill. 8. The more we investigate the scab the less we know about it."

Organization of the Agriculture Department.—Mr. A. A. Crozier writes the following to the *Prairie Farmer*: “There is a good deal of misunderstanding as to what the department is, and consequently misdirected efforts regarding proposed changes. This is a brief outline: The department controls forty acres in the city of Washington, owned by the Government; a leased farm of about seven acres outside of the city, used for experiments on cattle diseases; a plantation near Charleston, S. C., devoted to tea culture, and several quarantine stations in different parts of the country. The grounds in Washington contain the main buildings, greenhouses, propagating garden, and an aboretum or park of about 20 acres. About two hundred persons are employed, chiefly in eleven divisions: Seeds, garden and grounds, entomology (including a silk section), statistics, chemistry, botany (including a mycological section), microscopy, forestry, animal industry (called a bureau), ornithology, and pomology. In the last division the only thing yet done is the appointment of an agent, who is collecting information in various parts of the country. The department has considerable pomological material, such as colored plates and colored plaster-casts of fruits, which has been shown at various expositions. A place is needed where this material can be brought together and arranged, and where information may be collected, and frequent bulletins prepared on the condition of the fruit crop. There is insufficient means as yet to do this. For the last five years, probably one-half of the correspondence of the botanical division of the Department of Agriculture has related to grasses wanted in different parts of the country for cultivation. Numerous species have been described, and seeds of the more promising distributed. Several bulletins have been issued on the subject, one of which is used as a textbook in agricultural colleges.

Modern Iron Inferior.—Most of the iron of recent make rusts and wears away much more rapidly than samples made forty or fifty years ago. This deterioration arises from the fact that it contains more impurities than formerly. The common

iron of to-day is filled with slag, and looks coarse and fibrous when rusted or worn. Fifty years ago the iron made in the United States was largely charcoal iron, and was much purer and better than the same grades made at the present day.

Curious and Valuable Researches.—At a recent meeting of the Academy of Medicine, M. Brouardel made known some curious and interesting facts concerning the dead body of a girl, aged 22, which was discovered in a cellar under a heap of straw. The body had lain there about a year, and was in a perfect state of mummification. One of the limbs was shown at the meeting; it was thoroughly dessicated; the tissues were hardened and gave a sound when struck. M. M. Brouardel and Andouard attribute this mummification to the dryness of the soil on which the dead body had been placed; but the most important factors were five different species of acarina which deposited the *débris* of the envelopes of their eggs and carapace among the dust that covered the dry tissues of the body. M. Mégnin has proved that, by studying the generations of acarina which have been at work on the dead body, the date of death can be ascertained. This entomologist, by examining the *débris* of acarina in a child's corpse, ascertained that death occurred two years previously; and a judicial inquiry confirmed this statement. M. Brouardel described the order of succession of the different species of acarina which worked on the dead body of the young girl, also the work of destruction accomplished by each separate species; the gentles (larvæ of flies), *Dermestes Sarcophagus*, *Laticrus*, and *Lucina canaverina*. One species absorbs the fluids, another consumes the fatty acids. When a species has finished its work, it dies on the dead body or is devoured by a succeeding species. Each generation in summer time lives from six weeks to two months. In a recent case of murder M. Mégnin established with precision the exact date of the burial of the human remains discovered in the garden. Among the remains, a particular kind of ant was observed which is never found in soil recently disturbed; also the *débris* of acarina, known as *Æsophagus echinococcus*, which also furnished a chrono-

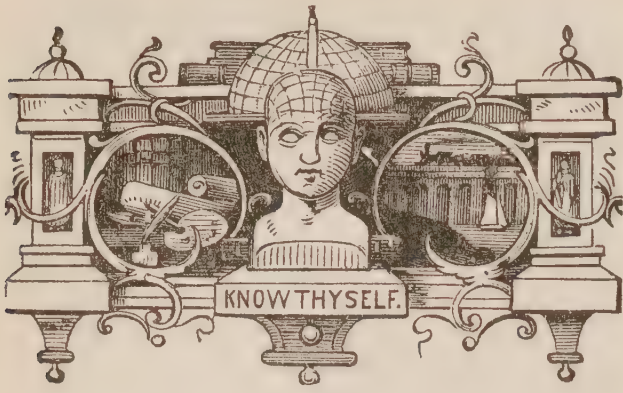
logical indication; portions of a bulb of a lily furnished further proof. Two years must have elapsed in order that the bulb should undergo the alterations it presented.

What a Five-Acre Garden Farm Produces.—Professor L. B. Arnold, who lives within three miles of Rochester, England, owns and cultivates a little farm of five acres. These five acres, Professor Arnold says, yield him, with comparatively little attention, a good living. Last year his corn crop gave him \$70, his potato crop yielded him but \$37, because the potatoes were scabby. The net proceeds of forty hens were \$40. The acre of newly-set raspberries gave him \$125, the root crop \$60, and the apple crop \$200. Besides all this, he adds, from, \$10 to \$75, worth of little incomes from the garden, fruit, crop, bees, etc. This account does not include cow food in the form of grass, fodder, corn, etc., amounting to enough to keep one cow half the year. All this makes about \$700, from the five acres. He keeps but one cow, wholly on the soiling system, there being not a rod of pasture on the place. The cow is a profitable member of the concern, and if men with families would realise the value of such an animal, and could believe that a cow and a pasture are not necessarily inseparable, far more family cows would be kept. One acre is in apple trees, one or two in corn, manured in part by poultry manure; one to raspberries (Doolittle), grown chiefly for drying. It takes about $2\frac{1}{2}$ to $3\frac{1}{2}$ quarts of berries for a pound of evaporated fruit. The usual garden crops are growing in abundance.—*Horticultural Times*.

Source of Words in the English Language.—By actual enumeration of the words contained in the best dictionaries, it has been ascertained that 13,330 English words are of Saxon origin and 29,354 of classical origin. In consequence of the popular nature of the Teutonic words in the language, the Saxon element largely preponderates in the works of our greatest writers. The pronouns, numerals, prepositions, and auxiliary verbs, the names of the elements and their changes, of the season, the heavenly bodies, the divisions of time,

the features of natural scenery, the organs of the body, the modes of bodily action and posture, the commonest animals, the words used in earliest childhood, the ordinary terms of traffic, the constituent words in proverbs, the designation of kindred, the simpler emotions of the mind, terms of pleasantry, satire, contempt, indignation, invective and anger are, for the most part, of Saxon origin. Words indicating a more advanced civilization and complex feelings, and most of the terms employed in art, science, mental and moral philosophy are of classical origin. The English language, which is now spoken by nearly one-hundred millions of the earth's inhabitants, is in its vocabulary one of the most heterogeneous that ever existed. There is, perhaps, no language so full of words, evidently derived from the most distant sources, as English. Every country of the globe seems to have brought some of its verbal manufactures to the intellectual market of England; Latin, Greek, Hebrew, Celtic, Saxon, Danish, French, Spanish, Italian, German—nay, even Hindustani, Malay, and Chinese words are mixed together in the English dictionary.

Mending Broken Limbs.—The farmer can apply one of the methods now common in surgery, if he have a little skill, when one of his animals has broken a limb. For large animals, strips of paper should be dipped in a thin paste made of calcined plaster of Paris, which soon sets and makes a stiff, permanent bandage, holding the broken bone in place till it heals. The animal, a horse or a cow, should be held in slings to prevent injury to the limb by violent motion. The broken legs of small animals, as sheep or fowls, require only to be brought into proper position and bound with strips of wet plaster paper until a sufficiently strong bandage is made. A covering of cloth is then put on and secured with a few stitches, or tied with a tape or string. The paper soon dries and becomes hard and stiff. Nothing more need be done but keep the animal in a quiet, dark place to restrain too much movement. A little movement does no harm, but excites inflammation needed to produce union and healing of the bone.



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A WORD ON THE OTHER SIDE.

THE friends of Phrenology, those especially who are recent accessions to the ranks of the faithful, are rather sensitive to any criticisms of the science that may appear prejudicial to its integrity. On this account we frequently receive requests to answer the attack of this or that writer, who incidentally or by special design, has thought it expedient to decry the doctrine or profession of Phrenology. The most of these assailants offer objections, if they specify any ground for their appearance in print, that are such ancient "chest-nuts" as to be thoroughly worm-eaten, and which at once declare the want of physiological learning on the part of the writers.

The others are usually persons who have taken up some new speculation in psychology, and after a rather hasty examination think it will afford them an opportunity to get a little conspicuity by making it the basis of an assault on the system of Gall and Spurzheim.

We will not say that in some cases there may be personal bitterness enter-

tained toward some individual, who enjoys a degree of popular reputation, on account of his capability in the practical channels of mental science, but we have known personal feelings to be the underlying motor of many sharp assaults. However, Phrenology from its announcement has served as a noble target for the ambitious disbeliever, and we expect that it will be detraction's shining mark for years to come, by reason of its very relation to the highest property of human nature.

A number or two back we had occasion to note an endeavor to reconstruct the organ of mind upon a postulate that has found support in certain circles, notwithstanding its direct subversion of the doctrine of function held by leading psychologists and anthropologists. Our allusion is to the attempt to transfer the seat of intellectual honor to the occipital lobes and to decry the popular belief in the mental value of a large forehead. Now we are requested by a correspondent to give attention to a declaration that appeared recently in the *Albany, N. Y. Evening Post*, and which is unmistakeably on our side of brain questions, as the following extract evidences: "To show whither we are drifting," the writer says, "we copy the following from a very interesting paper read before the Albany County Medical Society, in January, by Dr. Henry Hun, of this city:

'During the past fifteen years great progress has been made in the study of cerebral localization, and it seems probable that in the immediate future the whole cerebral cortex will be mapped out into small areas; each being associated with a definite and distinct mode of mental action, depending on the peripheral connections of the nerve

fibres which terminate in that particular area.'

"The brain is divided into different organs, each organ devoted to a different use. One portion of the brain enables us to see things ; another to hear things ; another to feel things. Destroy the integrity of these organs and you destroy sight, hearing and feeling. This is just what Spurzheim taught sixty years ago, and got jeers for his reward. It is just what Prof. Fowler, the celebrated phrenologist has been teaching for over forty years, receiving for his reward the applause of the people and the ridicule of the old-line doctors in the State.'"

BEECHER DEAD.

SINCE our last number was published an event of the highest significance has occurred. We could scarcely think of an event that would more profoundly impress the great American public than that of the death of Mr. Beecher. He was old in years, of an age when sudden death may be expected, but his individuality had become so interblended with the sentiment of the intelligent, patriotic, earnest-minded of society in all parts of the country, that it seemed as if his must be a life perpetual. And then, we all were accustomed to hear of him as addressing his own people Sunday after Sunday, but also going here and there, in the West or South, in the North and East giving instruction from the lecture-platform, frequently joining in some demonstration in behalf of reform or of some great political measure demanded by the time, and always so fresh, zealous, inspiring, that failure of power, decadence of body, anything that savors of the weakness that intimates the nearness of the last scene in the drama of mortal life, was not thought of in Mr. Beecher's career.

We doubt whether any other man of modern times, in the Christian ministry can be named who has exercised so great an influence upon all classes of people through his pulpit utterances and writings, as the late pastor of Plymouth Church, Brooklyn. His audience was a great one that listened to him Sunday after Sunday for so many years, but that was a small fraction of the audience spread throughout the vast expanse of the United States, that dwelt with attentive interest on his words. Wherever, indeed, the English language is spoken, Henry Ward Beecher found a hearing. The genuineness and naturalness of the man, his wonderful knowledge of the inner life of men, of their feelings, hopes and longings, and his great sympathy for all who were struggling against oppressive burdens of any form, political, moral or social, gave him a preeminence that was unmistakable among the world's orators.

He believed that everything on earth was for the use and benefit of man ; that all the institutions, ordinances, civilizations, of the past and present, were designed by the Almighty Father for the education and elevation of man, and to help him to live and labor in the great workshop of God's own establishment. He was in the lead of those who teach that good men make the best institutions, States, churches, and that the true way to make a grand and holy fabric of nationality is to commence at the bottom with the masses, laboring to inspire them with the love of God, of each other, of intelligence and true living.

We will not say how much Mr. Beecher owed to his knowledge of mental science for his great capabilities ; he

was one of its early and most earnest advocates in this country ; and has left on record sufficient testimony of his regard for it—in his frequent use of the terms of Phrenology, and in his application of the reasoning of phrenological writers in making clear the action of the passions and propensities of men in their daily life. No man was more successful than he in sending home to the

of the physical side of man, in training the appetites, affections and intellect, he declared the spiritual became more and more real, and natural to men, and with it a greater degree of enjoyment was experienced.

He had his weaknesses, his faults, like all men, and no one knew them better than he ; but for a mind well-matured, well-rounded, for a character earnest



HENRY WARD BEECHER.

convictions of an audience the sources of good or evil conduct.

Mr. Beecher was not afraid of the progress of science ; he closely studied it, welcomed every new development, and with singular intuition discerned its spiritual application. He sought to make spiritual truths real and practical in the lives of men, and in the elevation

and sincere, for a life filled out in all the measure of activity and usefulness and comprehending so many unselfish, impersonal interests, he is without a peer almost in modern history, and his sudden departure from the scene of forty years' incessant labor on the 8th of March, in the seventy-fourth year of his age. A later generation than this,

that will calmly view his part in the great events of the past thirty years, will, as we dare to say, award him a high niche among America's great men, as a leader of thought, in the discussion of new, startling, revolutionary questions, as an influence in moral and religious life, as a guide of moral sentiment to the great mass of the sober, earnest-minded of our people.

CORRUPT LEGISLATION.

A NEIGHBORING state has lately furnished the world a spectacle of political jobbery, in the struggle of divers parties for a United States Senatorship, that should arouse the indignation of every man worthy of the name American. Weeks were frittered away in petty strifes in and out of the legislative halls, and the demagogue who would wear the toga Senatorial employed all the skill and power of long experience as a politician, distributing money and liberal offers of patronage here and there, as a matter of course.

"Who wants to be Senator must pay for it," appears to have become a rule for the observance of every man who is politically ambitious; and with what consequence? We have but to glance at the men who sit in the places, once considered devoted to honor and duty, to see how far money and promises of place will go to change the character of a body once the pride of a nation. One by one the tall, strong men have retired, until on the fingers of one hand we can count the greatness that remains, the great majority being persons who would never have been thought of as candidates for such a position had they no money to support their brazen effrontery.

Men of narrow abilities, whose view of political questions is shortened and obscured by selfishness, can not legislate wisely for the people; it is folly to expect millionaires and would-be-millionaires to consider with perfect fairness the needs of the great mass of our population, and so long as such a class of men are sent to Washington by the voters of the States we must expect monopoly, jobbery and Acquisitiveness to get the lion's share in public measures,

When Mr. Matthew Arnold was in this country, he sought to warn us against the possible harm to our best interests and institutions through the influence of "numbers;" we have less to fear from that source than from the pernicious tendency now so conspicuous of dollars.

A MISTAKE UNEXPLAINED.—An unaccountable error in the March number was not noticed until after the printed sheets were in the bindery. The article of Mr. Noyes has the strange heading of "Shakespeare *vs.* Byron,"—whereas, "Byron" should be "Bacon." A singular substitution, since the name of Byron does not occur once in the course of the article. It may be the compositor or proof-reader had been reading the fascinating verse of the author of "Manfred," and his name lingered in memory to the exclusion of every other commencing with B. As for the editor, it is so long since he has read anything of Byron that it may be he had almost forgotten how the poet's name was spelled, and hastily concluded, when Bacon was uppermost in mind, that every name beginning with B and having five letters, must spell Bacon.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

OVER-ANXIOUS DR. A.—We did not find the likeness in your letter and can not therefore speak with its aid, but from your description infer that your nature is particularly sensitive, and there is a decided want of Hope and Self-esteem. For a physician thus constituted to build himself up so that assurance, cheerfulness and serenity shall be influential in his character, is a difficult

thing, yet much can be done through determination and patience. You should lay a good foundation for the moral change you desire by making the body robust. If your health is strong enough to bear occasional strains and emergencies without exhaustion those large organs of Cautiousness and Conscientiousness will not rob the smaller ones of their share of vitality, and your resolution to resist the dominance of the large ones will be the better supplemented by the needed strength. Cultivate the society of good-natured, sanguine people, and endeavor to acquire some of their ease and self-satisfaction. Trust more to your personality than to the materia medica. Of course you should exercise your best discretion in selecting remedies, but a physician's personality will have more efficacy than his mere prescriptions. Your constituency, to use the political term, trust you, so a manifestation of self-confidence will increase your power to heal.

BASHFULNESS.—A. H. M.—You ought to be in a business that brings you in contact with different sorts of men. When a person's mind is intent on carrying out certain enterprises, his subsistence and that of his family being dependent upon his success, he is likely in time to overcome, to a good degree, a diffidence and backwardness that may at first have been very embarrassing. Brace up; take part in religious, missionary, social movements; become responsible for some things in such connections, and if there be any backbone in you it will be developed to the improvement of your conduct.

PURIFYING THE BLOOD.—Interested Reader.—You are right in thinking that diet has a great deal to do with this matter. Good food and pure air are in fact the two grand promoting causes. A thousand times better than any of the much advertised bitters and alteratives. In Dr. Page's "Natural Cure" you will find suggestions on this topic, and also in Mrs. Dodds' "Diet Question," a pamphlet costing but 25 cents.

THE WORKS OF THE PHRENOLOGICAL AUTHORS.—Prof. B.—You are not the first to ask for a bibliography of Phrenology, and we have had the matter under consideration for some time. There are difficulties in the way of obtaining a complete list. One being the fact that many treatises and essays that were published years ago are inaccessible. Another, that some writers published in periodicals that are either extinct, or the old files in which their articles appeared, are not to be had. There are the once thriving Phrenological magazines of Florence, Paris, London, and other European cities, of which we know not how to procure a single number. There are the lecture-courses of Fossati, Broussais, Schewe and other distinguished men, of which but fragments are available.

If a complete bibliography were possible, it would surprise our friends by its extent, and we opine that skeptics would be amazed if not confounded by the literary wealth of the doctrine that has been so many times “exploded.”

MIND A “FORCE” OR AN “ENTITY.”—I. T. A.—We hold the opinion that the mind in its essential nature is an “entity” or something that operates through the brain and nervous system. How the connection is brought about can not be explained. The claim of some physiologists, that mind or thought is a product of an organic chemical action going on in the body, seems to us no nearer approach to a solution of the matter, for how such a chemical action could evolve an immaterial result like feeling, sentiment, reason etc., is a question that the analyst finds unanswerable. A distinguished chemist, a friend of the editor, after some years of special research into the structure of the brain, acknowledged that he had obtained no result that gave him the slightest light on the evolution of mental phenomena; and, although skeptical with regard to the phrenological view of their manifestation, said, “You know as much about this matter as anybody.”

BALDNESS.—L. D. H.—If you have a file of the PHRENOLOGICAL handy, and will look back a year or so, you will find two or three items and perhaps a full article on this topic. In brief, baldness may be due to inherited predisposal, undue heat of the head,

or to scalp diseases. Its treatment should be hygienic, keeping the scalp clean, and promoting the circulation in the hair follicles. Oils, pomades, much brushing, especially with wire brushes, are more harmful than helpful.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

A Suggestion to Railroad Managers.—A correspondent of *The Republican*, Barnesville, O., is an earnest advocate of mental science, and we infer from this extract that the editor of that newspaper is also.

Railroad disasters for the last six months, both in number and magnitude, have been beyond all precedent, and thousands are frightened from car-riding altogether. But, as in all disorders, either moral or political, everybody prescribes what they conceive to be the proper remedy, and while many must be wrong some one must be right. The Barnesville *Republican* has struck the one, which, in our judgment, is the right one; that the operatives of all railroads should be tested by a good, competent phrenologist as to their fitness for the position they are to occupy. This is the remedy, and the only remedy, that ever will, or ever can, counteract the disorder. But, says some one in a high place, some one with a plug hat on, *I believe Phrenology is a humbug.* Well, all right; we knew you believed that, but belief amounts to nothing. As far as a man has investigated, he knows; further than this he has no right to guess; but if he will persist in guessing, some one can guess the opposite, then each one will have one chance in two of being right.

Gall, the founder of the science of Phrenology, made the important discovery that the mind did not act as a unit; that only a portion of the brain was used for a given purpose; for instance, the organ of Calculation is used in counting and for no other purpose; that Marvelousness sprinkles its possessor with ghost feathers, but never counts any; then commenced the great work of finding out the particular function of each particular organ. This was worked

upon by a host of men of great minds, all along the line, for a hundred years. These men, having finished their great work, bequeathed it as a legacy for the benefit of all mankind. Phrenology was the first to make known the existence of color-blindness, and we are informed that railroads are now refusing to hire all applicants who are color-blind. They are using a part of the science, why not use it all? Then they could dispense with their little tassels of blue, green and pink, for the phrenologist would pick out the color-blind in less time than it would take to make the test. Look at the present system of conducting railroad affairs: Here is a man who hails from nowhere, or from everywhere; he applies for employment on the road; they consult a little among themselves. Well, they try him, and keep on trying him, until, through his incautions habits or wilful neglect, a train-load of people is ground up and their charred bones are found among the burning debris of the wrecked train. This is the legitimate result of the try-rule. Why will railroad corporations thus grope their way in the dark at such fearful cost to themselves and at the expense of other people's lives, when Phrenology selects the right man for the right place. Every man connected with a railroad should be well developed in the organs of Cautiousness and Conscientiousness; if he has large caution he will be very careful of his own life, and, if at the same time he has a due amount of Conscientiousness the same care will be extended to others. Now there are but two ways of finding out whether a man is fitted by nature for the position he is to occupy or not; one is by the try-rule, the other is by the scientific principles of the science of Phrenology. Which is the more sensible way?

J. R.

Indignant Subscriber.—A lady residing in Rochester, N. Y., complains of the non-receipt of a late number of the PHRENOLOGICAL JOURNAL, for which she is a subscriber, and goes on to say: "I hope it is neglect on your part, for it seems to me I can not do without it. I read it as soon as possible, and then measure the time I shall be obliged to wait before receiving another, it seems so long; and will you please to write me and explain why the delay?"

PERSONAL.

Mrs. Georgiana Bruce Kirby, who is well-known to many of the PHRENOLOGICAL readers through her treatise on "Transmission" or the influence of heredity, died at her residence in Santa Cruz, Cal., Feb. 27th last. She was in the sixty-ninth year of a busy life. Born in Bristol, Eng., she came to this country when a young woman, and being of an independent, progressive nature gave attention to movements that attracted the attention of advanced minds. One of her experiments was the celebrated "Brook Farm" enterprise. Later, in association with E. W. Farnham, she labored for prison reform and did a good work among the women of Sing Sing prison. Next she taught school in the South. About 1850 she went to California and there lived until her death.

Her book, called "Years of Experience," lately published, is a most interesting volume, giving a record of her life as a schoolgirl, servant governess, teacher, assistant matron of Sing Sing prison (under Mrs. Farnham), California pioneer, professional nurse, wife, mother and friend. Perhaps the most interesting part to the general reader is that relating to the Brook Farm community, where her associates were such men as George Ripley, Nathaniel Hawthorne, George William Curtis, and Charles Dana. Margaret Fuller, to whom Mrs. Kirby (then Miss Bruce) became devotedly attached, was also a member.

MRS. MARY MANN, the widow of Horace Mann, the eminent educator and disciple of George Combe, died at Jamaica Plains, Mass., in February last.

She was a sister of the wife of Nathaniel Hawthorne. In Mr. Mann's labor for the course of American education she rendered much valuable assistance—and after his death wrote the biography that appeared about twenty years ago. Later, she published a little volume on cookery with the title "Christianity in the Kitchen."

WISDOM.

"Think truly and thy thought
Shall be a fruitful seed."

Knowledge comes of learning well retained, unfruitful else.—*Dante.*

In the laboratory of life each new comer repeats the old experiments, and laughs and weeps for himself.

He that will believe only what he can fully comprehend must have a very long head or a very short creed.—*Colton*.

The higher the culture, the deeper toned the morality of a man, the keener his sense of the evils that afflict society.—*Drayton*.

The good thoughts, words and actions of mankind are the sparkling gems that shine so brightly, cheering their pathway.

Of each we ask, "Can life bear worse than this?"

Aye—answer weary lips and tired eyes,

To violent sorrows solace nature grants;
Worse than the world's supremest agonies

Are all its empty blanks—its hopeless wants.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"Ah me!" exclaimed the henpecked man,

"When all is said and done;

'Tis better to have loved and lost,

Than to have loved and won!"

Hush! Papa is reading his paper. Do not disturb him, for the daily paper is the "great educator of the people." He has finished his murders, outrages, and minor horrors, and is now in the midst of some juicy details of the latest scandals. Be silent or you may interrupt his education.—*Life*.

Young Woman (to dealer).—"I would like to look at canes, please—for a young gentleman."

Dealer.—"Yes ma'am. What kind of a head would you like?"

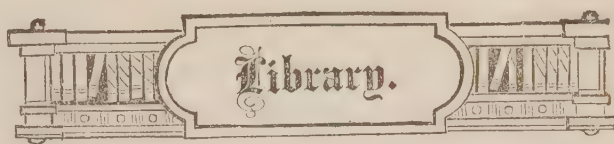
Young Woman.—"I'm not particular, only it must be a material that won't make him sick at his stomach."

Two old men lamenting the changes that have taken place. First Old Man (sadly)—"I can not enjoy myself now, as I could when I was a boy. I can't eat half as much."

Second Old Man.—"I can not eat as much now as I could when I was a boy, but I regard that as rather a wise provision."

"Why so?"

"Because I haven't got half as much to eat."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THE REPORTING STYLE OF SHORTHAND. A Complete Text-book on American Phonography. By Eldon Moran. Fourth edition. St. Louis. Christian Publishing Company.

The modest aim of the author of this treatise is "to impart practical instruction in the reporting style of the American Pitman Phonography." As a practical reporter he brings much experience to bear in the arrangement of the lessons. Perhaps a little improvement might be suggested in the engraving of the phonographic outlines in some of the exercises, but as a rule they are clear and legible. The idea of representing phonography as written in practice, is certainly a good one, although for the student who uses the book without a teacher, there may occur some trouble at times in its exact reading.

A considerable amount of useful information is supplied in the course of the lessons with regard to the practical duties of the amanuensis, legislative, law and platform reporter, and many hints on minor items that a stenographer is sure to find of service.

HERALDS OF EASTER.—A new poem of Eastertide by Dora Read Goodale, with designs of City-sparrows and Victoria blossoms, white doves, and blossoming apricot, swallows skimming over white daisies, chipping-birds and pussy-willow. By Fidelia Bridges.

This delightful souvenir of the gracious Church season of Easter is a fresh product of the enterprise of Messrs. White, Stokes & Allen, of New York. The poem fittingly

describes the sentiment of springtime and its accompaniments of bursting buds, early flowers and bird-joy, while the illustrations are charming effects of coloring and correct drawing. Besides the letter press a facsimile of the author's manuscript is given—a pretty conceit in itself.

SEVENTH BIENNIAL REPORT, of the Trustees, Superintendent and Treasurer of the Illinois Southern Hospital for the Insane, at Anna, Oct 1st, 1886. A comprehensive statement of the management of a large institution, received from Dr. H. Wardner, the superintendent. A cursory examination, confirms two views given elsewhere that the causes of insanity are due chiefly to voluntary habits and practices that militate against the physical integrity, and not to experience that can be grouped under the heading of necessity.

SHOPPELL'S MODERN HOUSES. Number 5 contains a variety of neatly drawn designs for dwelling houses, from the simple one-story and attic to the elaborate villa, besides designs for stables and carriage houses, a railroad station, the plotting of a garden, and notes on plumbing, draining, seaside cottages, and a very interesting essay from Viollet Le Duc's, "Habitations of Man in all Ages." Price in paper, folio, \$1.00. R. W. Shoppell, New York.

COOKING FOR INVALIDS. By Thomas J. Murrey, author of 50 Soups, 50 Salads etc.; pp, 32, boards, 50cts. New York, White, Stokes & Allen.

In this convenient little collection of recipes we have an attempt on the part of a skilled cook, to supply the need of the sick-room for appropriate nutrition. We can not say that Mr. Murrey has shown the experience and ability of a Letheby or a Fothergill in this respect; for some of his menu would not accord with a stomach depressed and anæmic, or in the irritable stages of typhoidal weakness; as an aid to the dietetic advice of a physician or a help to the trained nurse, however, there is much that is helpful, especially in the pages devoted to gruels and toasts.

CURRENT EXCHANGES RECEIVED.

Western Plowman: Agricultural and literary. J. M. Ware, Moline, Ill.

Book Chat: Notes and comments on recent literature. Monthly. New York.

The Banker's Magazine and Statistical Register: A. S. Balles, editor, New York.

New York Tribune: Daily and weekly editions. Tribune Association. New York.

The Cultivator and Country Gentleman: As useful and well-managed as ever. Albany, N. Y.

Cincinnati Medical News and Clinical Brief, etc. Dr. J. A. Thacker, editor, etc. Cincinnati.

American Inventor: Organ of the National Association of American Inventors. J. S. Zerbe, Cincinnati.

Scientific American: Abounds in popular data in art, science, mechanics, weekly, etc. New York, Munn & Co.

The National Temperance Advocate: Organ of the National Temperance Society. As strong as ever on the old line of prohibition. New York.

The Hahnemannian Monthly: Leading organ of the homœopathic school of medicine in America, Drs. Dudley and James, editors. Philadelphia, Pa.

The Christian Advocate: An improved stand is apparent in late numbers on the liquor question and patent medicine advertising, which we should be glad to see emulated by other leading church papers. Phillips & Hunt, New York.

Lippincott's Monthly Magazine for March contains: Kenyon's Wife, a novel; Confessions of a Reformed Humorist, The Policy of Insurance, Was it Worth While? Rent and Taxes, General John A. Logan." Philadelphia.

The Sanitarian: Dr. Benjamin, a New Jersey physician, tells some facts regarding house ventilation that ought to be known and acted upon by housekeepers everywhere. Dr. B. is evidently more inclined to practical benevolence than fee-getting. A. N. Bell, M. D., editor, New York.

The International Standard: Devoted to preservation and perfection of the Anglo-Saxon weights and measures, and the discussion and dissemination of the wisdom contained in the great pyramid of Jeezeh, Egypt. Dry subjects to most people made positively attractive. Published in Cleveland, O.

Popular Science Monthly, (D. Appleton & Co.) for March, discusses: Are Railroads Public Enemies? Birds and their Daily Bread, Higher Education of Women, The Habits and Family History of Centenarians, Celebrated Clocks, Comparative Psychology, Genius and Mental Disease, and has an appreciative sketch of the late editor, Dr. E. L. Youmans.

Harper's Monthly, comes with its March number loaded with richly decorated wares of the following brands: The New York Police Department, Dwelling in Paris, The Rivalries of Mr. Toby Gilham, Russia of To-day, The South Revisited, Springhaven, a Serial; A Louisiana Sugar Plantation of the Old Régime, etc., The topics largely possess a current interest. New York.

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LUDWIG WINDTHORST.

THE DISTINGUISHED GERMAN STATESMAN.

THIS portrait represents a remarkable character. He carries in his mental constitution all the best qualities which he could inherit from his mother and also from his father. His intellectual perception, his power of expression, his

ability to gather and remember knowledge are remarkable traits ; and he has wonderful capacity in the way of criticism and the ability to read character like a book, and these come from the mother's side.

His Language is opulent and select ; he can say as much as ought to be said, and say it in a way that will touch the mark every time ; riflemen speak of hitting the bull's eye ; there are some men whose talk is like a charge of shot ; it peppers the whole target and perhaps escapes the bull's eye entirely ; another man talks in a way that hits the bull's eye and nothing else, and it all concentrates to a point and hurts where it hits, or blesses, according to what it is.

He has excellent reasoning power ; but his talent is in the knowledge of men, the power to know character, the ability to gather and understand facts, and to be in possession always of what he knows ; and then the power of expression which we have mentioned enables him to converge all his knowledge to a cutting point.

He has a very broad head ; observe how it widens from the outer corner of the eye backward, along the line where the frame of the spectacles runs. There is great Calculation, remarkable Constructiveness, ability to put everything he knows into a combination such as might result in a locomotive, or print a newspaper, or do any other great work, all parts contributing to a final result ; then he has large Acquisitiveness and must be eminent in financial questions.

He is very broad at Destructiveness and Combativeness, and high at the crown, resembling the father side ; hence is a power wherever he acts. He has se-

verity, and yet he has Secretiveness enough to hide it ; his force is more like that of screw power, which implacably but noiselessly presses onward to its results, than it is like the blows of a hammer that makes a racket. We sometimes use a phrase that a man has remarkable carrying power ; we can say it of this person ; this does not so much mean the carrying of knowledge, although he can do that, but the mechanical, financial, executive and judicious characteristics which mass the talent and hold it where it can give a steady pressure, or a mighty outburst if required. He goes loaded ; he must be a wily opponent and a relentless antagonist ; for instance, as an advocate, as a lawyer, he would bring all his knowledge to bear upon a given point, and might be cool in his statement of it, because he feels strong.

He has too much head for his body, and, therefore, not an atom of vitality to waste on mere noise and bluster, or in anyway. His head is high from the opening of the ear ; hence he has masterly Firmness, strong Self-esteem, good Conscientiousness and Cautiousness. These keep him in a state of poise, and save loss of power, physical and mental.

His Veneration and Benevolence seem well-developed ; he must be kindly in his spirit, although settled and positive. That massive upper lip ; that stanch and well-balanced nose ; those strong, and yet concentrated cheek-bones, outward from the nose, show power, conservative qualities, persistency and dignity.

The only weak part of the face is his small chin, but we fancy that is partly owing in appearance to the decay and shortening of his teeth ; a man who is seventy-five years of age, and more, may

have a face an inch shorter than he had when he was young. That face means friendship, dignity, stability, patience and conservatism, and it means integrity, uprightness, principle, and it means also self-control.

The reader will observe that the opening of the ear is pretty low, and as the brain above and about the ear shows that the head is very broad, we may say that he has a strong hold on life ; even with so small a body its vital resources are conserved, and he is likely to live, if he doesn't kill himself with work, many years longer ; at any rate he has the life-power that would enable him to do a great deal of work before he would succumb ; his head being so much too large for his body he has been inclined to over-work.

That is a busy brain ; that is a clear head ; that is a man of might, and with such self-poise as is rarely met with.

His social nature is decidedly strong. He has strong religious feeling, talent for science, and literature, and affairs, and his side-head is large enough to make him a financier and manufacturer, and master of matters that interest States and individuals ; besides he is so orderly, and systematical in thought and work, that he is able to bring his power to bear in a way that commands respect and awakens fear. We believe he is true to his friends, and a very strong opponent to that which he dislikes, or to that he believes ought to be opposed. N. S.

One of the most remarkable men on the continent of Europe to-day, a man who has risen into prominence both on account of his political opposition to the measures of the German Chancellor and because of great capacities, is Herr Wind-

thorst, the leader of the Center Party in the German Parliament. Advanced in age, older by years than Bismarck, he is nevertheless fresh and active in body and mind, able to remain all day at the sittings of the Reichstag and make a two or three hours' speech filled with hard logical reasoning and statistical data.

He was born November 12, 1812, at the little town of Meppen, Hanover ; of a somewhat distinguished family, of the old Catholic faith, and of ample means. He studied law in Goettingen and Heidelberg, and then practiced it for a short time, until appointed Presiding Counselor of the Consistory of Osnabruck. Hanover was then an independent kingdom, cherishing dreams of greatness. From 1849 to 1866 Windthorst was a member of the Hanoverian House of Delegates, and in 1851 he was elected its president. He was tendered the portfolio of Justice in the Cabinet and exercised the functions of this important office, with several interruptions, till 1865, then resigning on account of a difference with King George as to the best way for Hanover to meet the gathering storm-cloud of the Austro-Prussian war. The battle of Sadowa was fought, and Hanover saw its splendid little army demolished in the battlefield of Langensalza and at the treaty of Prague poor King George, blind in more senses than one, was left in the lurch by Austria and France alike, and saw his sovereignty swept away by King William. Despairing, broken-hearted, this king left the land over which his forefathers had ruled for a thousand years, and went into banishment and death. It was at this time that Windthorst achieved a national reputation. He it was who was selected by King George as his champion to defend his claims to the vast royal domain and treasures against Prussia. And what slice the blind monarch finally obtained out of that mass of wealth, known in history as the Guelph Fund, was secured through this little indomitable man, Herr Windthorst.

The year 1867 saw him elected to the Prussian House of Deputies and then to the Reichstag. He has sat there ever since, one of its most conspicuous members, and, in the estimation of many, next to Bismarck, the ablest. In a country where eloquence is a rare guest, where the gift of fluent, electric speech is but seldom granted, the oratorical eminence of the man alone was enough to make him a shining light in the young and untried parliament. The "Little Excellency," as he is dubbed, has been since 1871 the leader of the Centrum, otherwise known as the Clerical or Ultramontane Party, and under his leadership these formerly scattered forces have become the most powerful ally or foe of the Government, as the case might be. He has shown himself to be more than the peer of Bismarck in parliamentary tactics, has known how to marshal and deploy his small army with consummate skill, and has never wasted his powder.

"When Windthorst rises to speak, everybody is on the alert, for everybody knows that he has something to say worth listening to; that he and his party have taken a stand on some question or other, and that with good reasoning a mass of valuable data is to come forth, shedding new light on some mooted point. The Speaker never has to call him to order, for he is ever polite, sticks

always to the matter under discussion, and never makes misstatements. When he desires to repay an injury in kind he never becomes abusive or gross, but by a clever innuendo, a veiled phrase, he covers his man with confusion and exposes him to derision. He has scored his greatest oratorical triumphs during those years when the religious contest raged at its fiercest; when the privileges which he and his party cherish were exposed to the fierce assaults of the Government."

As the portrait shows, he has a large, well-developed head, the intellectual region being greatly developed, while the moral organs are evidently very influential, giving him evenness, poise, and power of original conception. As one who has seen him, says: "He has a noble head; a broad expanse of brow, two piercing brown eyes, whose gleaming is but partially concealed by the gold-rimmed spectacles, and the fluffy white hair, giving an air of originality to the entire face." In body he is small, and by no means attractive; his head imparting an appearance of disproportion, because of its large size; yet his health and endurance seem in no wise to suffer because of such association; a fact, probably due to the orderly and temperate life that Herr Windthorst has pursued from an early age.

THE BIBLE AND PHRENOLOGY.

"Be not afraid of their faces."

NEXT to the study of the word of God, what could be more fascinating than the study of the human face? In repose how sweet to gaze upon it! The far-away look, speaking of immortality; the peace of soul; the holy aspirations shadowing the fulfilment thereof, when the dust has returned to dust! Time was when Phrenology and physiognomy were looked upon with distrust by many who professed to be followers of the *one* in whom are "hid all the

treasures of wisdom and knowledge." Happily that day is passing or has passed away.

The ardent lover of the science rests assured that the day when it shall take its place at the head of the scientific world is not far distant. It recommends itself; with it we are armed against deceit, fraud, hypocrisy; with Jeremiah we can say, "Be not afraid of their faces." Look out in the great world. How multitudinous the characters—no two faces alike. See the changing ex-

pressions; the cunning, the fraud, the joy, the sorrow! Each face is a printed volume, telling its own history; happy is that one who has the power to lift the covers and to read each page. In every station a knowledge of the science is necessary. The pleader at the bar needs it; the physician. The preacher, as he adapts the word to the people, sees in their faces a reflection of his sentiment, and doubly useful is he who can read and answer their *mental* objections, and can catch the inspiration of the soul that echoes in a still, small voice the sentiments he expresses. May this not be the secret of the orator's power—modern inspiration where soul speaks to soul—the magnetic subtle current that vibrates and fills with rapture the heart of the truly sympathetic speaker? A certain knowledge of it is necessary to the proper regulation of home life; too many parents look upon their children as if there were no differences of temperament or disposition of power, mental or physical. They never seem to recognize the fact that this one is to be compelled to do its duty and that one is to be drawn by the enticing voice of love. Treat them all alike and you *make* some, and at the same time *unmake* others. An understanding of the science is necessary to the instructor of youth; recognize the mental differences, suit instruction to capability, and you have the secret of successful education. Jeremiah, the writer of the words already quoted, was evidently a physiognomist, a phrenologist, intimately acquainted with the failings as well as the virtues of the human race. His reliance upon the word of the Lord, and his knowledge of human nature, led him throughout life to act as if he feared no one.

Looking beneath the surface of the threat made by an enemy he saw the Cautiousness that would prevent the carrying out of the evil words. His dread of annihilation was small: his Sublimity led him to look above what

man could do. With Self-esteem meagerly developed and with Firmness strongly marked he pursues, without turning aside, the round of his checkered life. Veneration and Hope, the former to give allegiance to God, the latter buoyancy to his drooping spirit amid the conflicts for truth and righteousness, constitute him the grand leader, the fearless man of God. His Perceptives and Reflectives must have been singularly well-balanced; seeing the "tactics" of the enemy he had the power to act so as to thwart their cherished and treacherous plans.

With Perceptives largely in the ascendant and with feeble reflective power a man is apprised of danger, but has little power to thwart or escape it; with good Reflectives and evenly balanced Perceptives, with good Secretiveness and Constructiveness, Jeremiah-like, he will take in the situation and, if a way of escape is not at hand, it will be found.

The Bible is the friend of Phrenology. Does not Paul look down into the very soul of his hearers to-day? Does he not reveal the hidden meanness—the motives of the sinner? What phrenologist can reveal him in his matchless delineations of the *animal*-man? Who can surpass his efforts as he rises to the sublimity of the spiritual world? Our souls are thrilled as he depicts the fruitage of Hope, Spirituality and Veneration. There are two sciences necessary to our happiness here and hereafter. The science of Divine things (we have this in the revealed word) and the science of human nature or Phrenology. Given these two requisites and man is being prepared for both worlds. To know God and man is to know all things. Look into thyself, look out to God, and thou art happy; this should be the aim and end of all.

ARTHUR M. GROWDEN.

The character that is unable to resist temptation or unwilling to perform its duty faithfully is not more beautiful than a figure that can not support its own weight.—D.

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 17.

COMBATIVENESS.

THERE is something harsh-looking in this word. You know what combat means—fight, opposition, strife, and might, very naturally, think that it is not quite wise to claim that we have a faculty in the mind, or an organ in the brain, that leads us to quarrel and contend. You will remember that along back when we were talking about some of the organs, like Destructiveness and Secretiveness, I told you how many of the names first given to mental faculties were suggested by their stronger or over-excited action; that Dr. Gall made some mistakes, thinking that what was really an unnatural action or expression of certain organs was their normal character. Because he found men who had very large Secretiveness, as we term it now, and were generally very close and sly in conduct and speech, he named the faculty Cunning; and the cases of very strong Self-esteem appeared to convince him that pride was a suitable term for it. I hope that you all who have read the "Talks" so far, remember what I have said about the proper action of faculties so that you can see the difference between that and their influence when they have been badly trained or permitted to become too strong.

We could have a better name than Combativeness, but it is not easy to find one that will be exactly right—and show just how the faculty operates. Some think that Defensiveness is better, but the idea of defense is scarcely sufficient to carry all that the organ has in the way of function; we should add the element of boldness in opposition that stimulates the opposition to energetic conduct and goes forward in the assertion of personal right. We learn much of the nature of this faculty from its association with other faculties that have their centers in the back part of the brain. There it lies close to the social feelings, and to

Cautiousness, Secretiveness and Destructiveness, and this fact hints that man must assert and defend his interests of home, family and friends—if he would enjoy them. In savage life the necessity of defending such interest, is much greater than in the kindly relations that we enjoy, who are living in the light of modern civilization; and in savage life, too, there is greater need for struggle to get the common means of subsistence. The Indian who roams over the great wilderness of the Northwest and on the rugged mountain sides, must make long journeys, often expose himself to danger and endure weariness and pain to get



COMBATIVENESS LARGE. MR. M. V. M.

food for wife and children. Then, too, the savage delights in having a reputation for deeds of courage and daring; to be a great warrior and hunter is the chief object of the savage boy's future. Thus Combativeness is kept in a state of excitement and it works more with the lower appetites and propensities, with

the animal nature, and shows its rudest side.

You see in many of the animals this kind of action on the part of the faculty ; and it is natural enough with them because their instincts are for the most part those of self-protection. A dog is



COMBATIVENESS MODERATE. SIR H. H.

one of the best examples of Combative-ness that we can find. A dog will attack anything when provoked, no matter how much bigger and stronger. Lion hunters say that the lion is afraid of a man and will not attack him openly, and shows the cautious, cunning qualities of his species whenever near an animal that is a match for him--like a tiger, or bull, or elephant. But a dog will go at a lion or a tiger and try to drive him off. Some birds have the faculty in a marked degree also, and show it sometimes in an amusing way. I have seen a little bird attack a hawk in the air ; the king-bird will do this and so worry the hawk that he will be glad to get away from his little tormentor. Canaries and sparrows are not wanting in boldness, and mocking-birds are very plucky in driving away intruders upon their privileges. I need not mention

the bantam-cock ; you know how vain and pugnacious he is. I had a little Spanish fellow, when I was a boy of fifteen, that was a pet. He did not weigh more than three pounds, yet if a neighbor's Shanghai or Brahma rooster came near he would at once fly at him and never give up the battle until either the enemy was driven out of the yard or he himself was taken away.

The development of Combativeness, when large, gives a shape to the back-head that you can not help seeing ; it makes it look full and square, back of the ears ; you notice the effect of it even when a person has his hat on, and if you have an opportunity to compare two men, one who has the organ large with one who has it small, you can't help seeing a great difference in the way they walk and act. The looks of such men when they are wearing stove-pipe hats, are a great deal like what we see in the engraving, especially if the man with large Combativeness has worn his hat some time, and the rim has gotten out of shape. The influence of the fac-



COMBATIVENESS LARGE.



COMBATIVENESS SMALL.

ulty when it controls the mind and spirit is evident in the manner ; the "combative" man walks firmly, his feet are planted in an emphatic way, the motion of his head is, in short, abrupt lines, and he speaks up as if he meant to be heard, and accents his words strongly. His body is carried in a swaggering way that tells you he is not afraid of opposition, and if he has a good deal of Firmness and Self-esteem, there's an ex-

pression in his face, that declares he is not to be trifled with.

In the pose of the head and expression of Mr. Montgomery, there are evidences of strong *Combativeness*, and you can see that the head is rather full just back of the upper part of the ear. He is emphatic and plucky, and well-suited to a place where many demands are made upon one's time and services, and that often by fussy persons. There is on the other hand but little of the expression of pugnacity in the face of Sir Henry Holland. He is a firm man, no doubt, but fond of peace, and disinclined to anything like fighting.

Combativeness helps a man to make his way in places where he meets with

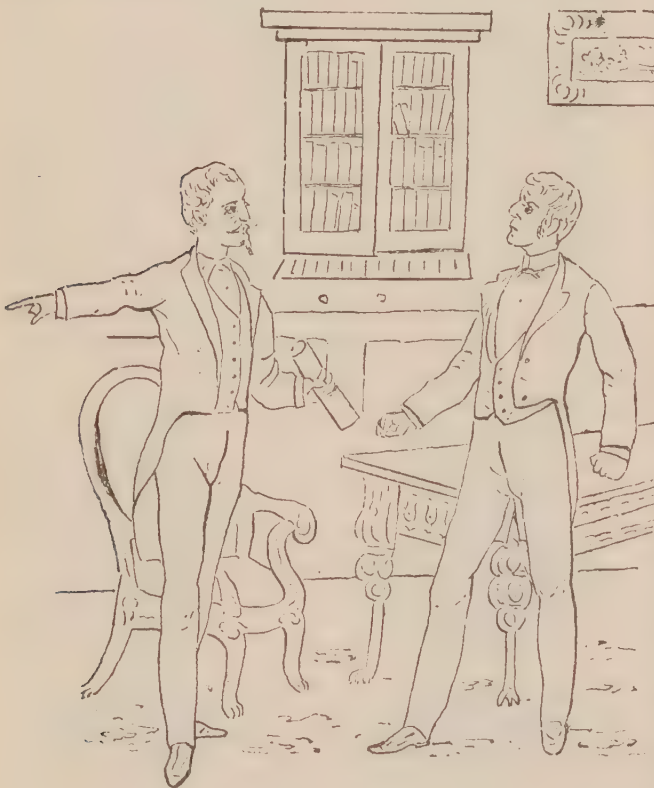
when hard at work, each for his own side, you would think sometimes that they were anxious to get at each other for a rough and-tumble fight—whereas they were only doing their best to win in an intellectual combat. In the illustration you see a contest between two gentlemen; their spirit is aroused through *Combativeness*, but the dispute is carried on in a dignified manner; it is a battle of logic and reason—where this organ performs a really grand part.

Wherever exposure to changes is to be expected—as in military life, in travel that takes one amid strange people, especially savage or barbarous races; in explorations to the far North; in missionary life, where suffering is to be encountered and unexpected difficulties to be overcome, a good share of *Combativeness* is necessary. It helps to bring out a man's moral and religious sentiments, and make them living forces for good in the world. One may be kind, good-natured, reverential, honest, yet timid, backward, irresolute, and weak, and so of little use in his own circle and to the world. Give him strong *Combativeness*, with its audacity and spirit, and he is no longer an inactive or namby-pamby man, but ardent and spirited, and not afraid to take hold of the work and duty that falls to him.

If any of you are of a quarrelsome nature, peppery, easy to take offense and fly up, remember that such a disposition belongs more to terrier-dogs than to young men and women, and that you should try to restrain it by cultivating your normal feelings, your politeness and good-nature. Avoid all occasions of squabbling and petty disagreement; they are mean and vulgar.

When you are likely to fly into a passion, count twenty before you speak, keep your mouth closed tightly, and exert yourself to be calm, by the reflection that self-control is one of the greatest means of self-development and of triumph.

On the other hand, those of you who



THE COURAGEOUS DISPUTE.

opposition. In some kinds of business there is almost constant strife of a moral kind. Take the business of the lawyer, for instance. He is required to settle quarrels or disputes, and he must have a good deal of boldness to get along well. When he undertakes to try a case in the court-room, he has to meet opposition there from the lawyer who has been engaged by "the other side" as they say. Trying a case may be a very respectable thing, but if you should see lawyers

are wanting in courage and boldness should try to make their Combativeness more active—by taking part in debates and discussions, at school, and in society,

and doing things for others that force them to assume responsibility and go where a little courage is demanded.

EDITOR.

THE DIVORCE QUESTION.

THE general sentiment in regard to dealing with the divorce question seems to be in favor of a sort of legal surgery—the cutting off of marriage licenses, and the cutting out of divorce privileges from statute books. But the sage physician—to carry our simile further—will declare it a case for constitutional treatment; will say that this clamor for divorce is but a symptom of unwholesome condition; and that the revolt of unhappy parties is not without some hopeful indication. At least, we may believe that the litigants look for a better state—and that is something. No fact in the complex machinery of our civilization stands by itself, but all facts are related, and depend upon each other and upon antecedent conditions. To legislate away the privilege of divorce may be an easy matter, but the causes that lead up to this demand are not to be so summarily disposed of; and to stop the current of an evil involves the danger that it may make channels of every crevice and pollute more social territory.

Statisticians, who prove to a nicety that the number of divorces in different communities is in exact ratio with the laxity or stringency of their divorce laws, have a laborious way of demonstrating a self-evident fact. What we desire to know is whether, in those societies where it is more difficult to procure divorces, the moral atmosphere is correspondingly pure and the marital obligations are more sacredly regarded.

As if to answer this most pertinent inquiry comes the horrible story of English shame; and the nobility calling back to the jeering commonality, “Yes I am bad, but you are much worse!”

A home means something more than the abiding place of husband and wife and children, else it means but little. The vital meaning of the home is in the harmonious and helpful relations existing between its members. The actual conditions may fall very far below the ideal standard, and yet the home may be tolerable, and may yield advantages that should not be lightly thrown away. But when selfishness or crime have shut out those gentle influences which we associate with the name of home, then to insist upon the inviolability of the marriage tie, is to put a high price upon our conventions; and unspeakable evils may as often be the result, as they are the cause, of domestic infelicities.

The unwilling members of unhappy homes are simply domestic anarchists, slayers, in some degree, of the national life, for the home-circle is the nation in miniature. The proper business of law is to protect and to assist justice. In its simple, direct application to evils it is generally as effectual as any superficial treatment can be with intricate and deeply involved matters. It does, in a measure, protect the community from the depredations of thieves, the nuisance of drunkards, by locking them up; it does protect wives and children from the tyrannies of husbands, by granting separations; but when its arms lengthen to reach the more intricate facts of social life it becomes weak and inoperative in proportion as it assumes arbitrary control over those conditions, which are so organic and logical as to mark the development of the human race. We see this in ineffectual prohibition, anti-divorce, and all laws proscribing to some extent the natural liberties of the people;

and when we study the conditions of nations where this sort of paternal government is actually enforced we see how entirely subversive are the laws of their declared ends.

The way the divorce problem is dealt with by legislators and moralists, is a striking example of the universal tendency to receive easy plausibilities, to accept phenomena for principles, and clap its handiest, readiest solution thereon. By a curious misapprehension of the subject, writers upon social science are apt to recite a long train of evils as resultants of the divorce privilege. One of our best writers, Dr. Woolsey, says this: "But whether we are to decay and lose our present political power, depends upon our ability to keep family life pure and simple." Thus he and popular moralists point to the old Romans as examples, believing that their rigid virtue and simplicity sustained their greatness until divorces were granted, when immorality, reckless living, enervation, national weakness and final ruin followed in its wake. Now this fallacy is apparent. If, as history tells us, for five hundred years the Romans did not take advantage of a loose divorce law which then existed, and in the next period made them still looser to suit the exigencies of their growing immorality, it follows that divorces were not a cause, but merely one of the indications of their demoralized state. The same may be said of divorces to-day. When there is a demand for them, then the real destroyers of home and society, licentiousness, corruption, idleness, and ill-conditions producing these, are in advance; and divorces are merely one of the warning indications of a needed social regeneration. Now to apply the remedy of an anti-divorce law for the protection of society and state is like putting iron bands around worm-eaten, crumbling houses. We all know the necessity of keeping family life pure and simple. But what we need to that end is neither moralizing to the

people, nor laws to prevent the tumbling down of wornout social structures, but new erections, new conditions that will answer and occupy the forces of human development.

So much for a general survey and answer to this question, as it is popularly comprehended. But this has been merely winnowing the chaff to get at the wheat. We do not pretend to limit the functions of law, or point out its particular errors, any more than we enter into considerations of the intricate details of the evil with a view to its correction. For that is being done right along without successful results by statisticians and legislative bodies. What we mean to show is not so much the evil of divorce as the meaning and causes of it.

It seems to us that with a nation so radically superior to other nations, in point of individual progressiveness and individual liberty, this phenomenon of evil has a deeper significance, as proving either that there is no positive check to periodical moral decline in greater opportunities for development, or that this revolt against unsuitable unions marks an awakening to a better conception of the true ends of marriage. I hold this latter view. For I am not by any means prepared to say that the increase of divorces here is a sweeping argument for our depravity. So far from it, indeed, that I hold the demand for divorces rather as a strong, though somewhat blind effort, of the live part of the nation toward those new conditions for which certain national stages of growth are ripe, and which various social evils warningly indicate.

Conditions and people of the old world compared with those of the new, will illustrate and support this opinion. In Europe there is little originality and thought-ferment in the mass, because there is little individual freedom and responsibility; that is the root of their conservatism. They can not reason themselves into the desirability of new conditions, because their reason is a com-

paratively unused faculty. The mass is *forced* into whatever improvements science and civilization may bring, and moved along a little by its necessity. But they do not move things; things move them. Individual growth and development to the extent of shaping society, or the destiny of their country, is only to be found in the superior few who are at the head of nations and virtually compose its power. We can scarcely say Germany is great because Germans are, but rather because Bismarck is, or Luther or Goethe was. Except in a physical sense, composing the trunk and labor power of the nation, the people have no recognized existence, are politically and socially mere automatons.

Such a condition can not quickly produce a better. It means comparative stagnation, the inaction of all powers but those daily exercised for the maintenance of life and the meager enjoyment of it. Hence that common state which can neither be called progress nor stability, and which it is a misnomer to dignify by the name of stability. The idea of making divorce less difficult, if at all entertained, is entertained as impossible. Law is as custom, and custom is as revered as the Supreme law. Social speculation, domestic idealization, has nothing to do with their hard necessity of bread-winning, consequently they have nothing to do with it. That is the nature of the old world's stability. The business of living occupies the average European more than the business of life. They give less thought to the manner than to the means. So they content themselves with almost any condition that makes existence only possible and tolerable. Men and women marry to this purpose although the true end of marriage—the highest happiness and development of the individual, the propagation of better races, and the cementing of society—be wholly prostrated. In the Southern countries, where marriage ties are most strictly preserved, the people have little healthy

intellectual and moral organization are least progressive. In Germany where the secular Government has its way of making sure home-foundations by keeping the indiscriminate mechanism of a bureaucratic system at work investigating the right to a marriage license, the villages are full of illegitimate children. This is what laws strained past their original functions of protection and justice can do at most—maintain an appearance of order and stability, while in reality the process of demoralization and decay goes on more insidiously in proportion as there is no free intelligence to take cognizance of it, and no voluntary resistance. Average marriages are matters of business or necessity; the man must have a housekeeper, the woman a homemaker. Average homes are mere roofs and storehouses of acquisition. Children are objects of instinctive and obligatory solicitude rather than welcome bonds of love, and pledges of high moral responsibility. Harmony in the home-circle is a happy accident. No one dreams of its being a matter of personal effort, or of physiological affinity. They know only the law of the land.

Samples of the result we may see any day at Castle Garden—men with stolid, brutish countenances, telling their own tale of habituated selfishness and gross abuse of prerogative; and women dejected, careworn, vigilant only in swift obedience and stupid, drilled devotion. Their children, according as male and female, are small types of each parent, inured still further by example to a life of injustice and strife. This is secure homelife, based on laws of prevention, and on laws of protection. Men can get no marriage licenses without certain qualifications, and so they dispense with such costly formalities. Men know the moneyed difficulty of obtaining divorces, and are more cruel and selfish, getting the best in their gross conception that can be out of an unalterable situation; careless, too, of appearances in their knowledge of man's so-

cial immunity. Women are shown the disgrace of divorce, and made submissive through mother-love that sees only the immediate effect of cutting loose from tyranny. So she endures all, as the law wills it, becomes a mental and spiritual wreck in the last hope that children will reap the reward of her sacrifices and her endurance, and be grateful; while all the time the husband's life foreshows their boy's life, and the daughter shall be like unto the mother.

Before proceeding further it must be remarked that so far as divorces obtained in Europe, they are the indications of disease and privileges of wealth. They are not, as here, indications of liberty, but merely of money-power bribing the law which binds less fortunate ones. Under our institutions all men, not a few superior men, determine the nation's general character. Vital questions affecting their constitution are laid before the people, and everywhere is law-making a responsible, and legitimate concern. Men and women in every sphere of life delight in self-imposed activity and independent enterprise. There is no class of leisure. The first result of this, is revolt against anything that appears restrictive or binding. They will have free life as they have fresh air! Anything short of it, be it but so much as a voluntary compliance with necessity, is irksome and will, by some means or other, be speedily overleaped. The burden of our subject, divorce, furnishes examples. "Something must be done," cry the alarmists, pointing to divorce courts as the first doors to be closed.

Our statisticians show us that divorce is most common in New England—the center of our intellectual life. In one year the total number of divorces were 2,113—a larger ratio in proportion to the population than in France during the worst days of the Revolution. In the Western Reserve, comprising the North-eastern counties of Ohio, settled mainly by emigrants from Connecticut, and said to contain a purer New England

stock than can be found in the entire country, unless it be in parts of Maine, the ratio of divorces to marriages is 1 to 11.18. In Ashtabula County, among the farming people originally from New England, it is 1 to 8.5. But in Gallia County, peopled with Welshmen and Southerners the ratio is only 1 to 50. This shows that wherever the New Englander is, whether in his native States or in those of a promiscuous and foreign population, and amid comparatively foreign influence and ideas, he preserves his peculiar characteristics. That these characteristics are not morally unsound or bad is proved by the fact that while the foreign and mixed elements in our country is conspicuous for the positive vices and crimes against society, such as drunkenness, cruelty, licentiousness, suicide and murder, the New Englander is conspicuous only for divorces and certain slight divergences from the proper path, which indicate the speculative, and at most, erratic tendency of pronounced individuality accustomed to independence, more than anything else. Compare the social atmosphere of New York, Chicago, Cincinnati or San Francisco, with that of Boston, or any New England town, and it will be found that divorces do not indicate the worst of all conditions. If they find their matrimonial alliance a disappointment and a mistake they will not confirm it year by year to parade a show of integrity by violating the sacred intent of harmony and happiness. Keep the word though you sacrifice the spirit, has always been the last charge of truckling minds, never the foundation of truth, reason, and growth; and, therefore, least of all a characteristic of the New England spirit that produced an Emerson and a Channing.

If now it is argued that Americans, possessing those superior conditions which foster high ideals should also possess the ability to prevent matrimonial ruptures from incompatibility of temper and kindred causes, by a mutual

adjustment of disposition, and by superior forbearance, I answer that they have not yet reached that state of perfection and self-knowledge. They are on the road thereto, but that Utopia of humanity is not yet. Present intelligence and development is just high enough to form ideals, and not high enough to mold our actual conditions into the likeness of our best conceptions.

This impatience of restraint as the common legacy of liberty, is not confined to the domestic sphere, but manifests itself in every avenue of American life. If comprehended aright and its great purpose is anticipated with helpful, well-directed measures, it will result in the busy reconstruction of a wider plane of social and moral life. That is the end for which men and women fight unconsciously together in their characteristic ways. None but the philosopher knows what they want. They are simply dissatisfied with things as they are, because they do not answer present social needs; because further, they do not suffice to bring out and realize the true American idea of things as they should be—higher, more equally sufficient to the needs of every individual. One-half the nation, its women, needs a legitimate, recognized channel of activity. That is the first demand now expressed in all social

evils; but especially in all hasty marriages and divorce. Activity will absorb all tendencies to light, dangerous associations. Women, sure of being able to maintain themselves by their own industry, and thereby gain social recognition and honor, will be less prone to contract early and ill-considered marriages.

Truly our great need is for pure home life; but our homes can only be built by just such men and women as are at hand. Our marriages are as good as our politics; as our religion; as our commerce. It is bad that no political movement can take place without bribery and corruption; but it is something that we hear of the ticket-scratcher and of citizen's leagues. Volumes of unreason and dogma issue from our churches, and volumes of profanity are thundered back by angry scoffers. And so, out of all this domestic revolt and clamor about divorces, we see in our popular literature, and hear in our every day talk something that shows that there is a general awakening of interest in regard to the great physical and moral facts, which determine the fitness of men and women for entering the marriage relation. Very crude and tentative are some of the methods advanced for purifying domestic life, but it is much that we have come to see that there is need of precautionary measures. BERTHA A. ZEDI WINKLER.

BEECHER AND PHRENOLOGY.

THE following succinct statement, although taken from a newspaper of very large circulation, the *New York Herald*, (March 13th), will be fresh to many of the JOURNAL readers.

"Nelson Sizer, professor of mental science in the American Institute of Phrenology, in an interesting critical estimate of Mr. Beecher's mental qualities from a phrenological point of view, said:

'Henry Ward Beecher was a genius. His faculties were extraordinarily well-balanced and his physical and mental

powers were prodigious. His father was brave, hardy and earnest; his mother was a natural poet and artist, and he took his fine imagination from her and his thunder and courage from his father. His head was twenty-three inches, his body weighed over two hundred and twenty pounds and fed his brain abundantly and gave him his masterly talent for much and easy work. He had the finest quality of brain of any man in the United States, and knew how to take care of both his body and his brain.

"When Dr. Spurzheim came over

from Europe to teach the new science of Phrenology there was much opposition to him, and after his death Phrenology was fiercely discussed and ridiculed all over the country. In Amherst College it was sought to demolish the science by getting Henry Ward Beecher to take the negative side of the debate on the question, 'Is Phrenology entitled to the name of science?' But even though a young student, Mr. Beecher was not a superficial man and he resolved to study up the subject. So he sent to Boston by stage for the works of Spurzheim and Combe, intending to post himself from the opposition standpoint. But he found so much in the books that he asked for more time, and finally got the debate postponed two weeks. Then he delivered a speech in favor of Phrenology that astonished the college and the town.

'After the debate young Beecher asked a classmate, named Fowler, if he would not like to read his books on Phrenology. The young man said he would, and from that time the name Fowler and Phrenology became wedded. Thus it was that Henry Ward Beecher gave the science in America one of its most ardent adherents.

'Mr. Beecher's chief ability lies in the discussion of talent, character and disposition. In that field his knowledge of Phrenology is the key to his power over

men, for then he talks directly to faculty, and as he goes 'from grave to gay, from lively to severe,' men feel touched in their strongest and weakest points, and imagine that he knows them through and through.

'Mr. Beecher once said to the late Samuel R. Wells, 'If I were the owner of an island and had all the books, apparatuses and appliances, tools to cultivate the soil, manufacture, cook and carry on life's affairs in comfort and refinement, and on some dark night pirates should come and burn my books, musical instruments, works of art, furniture, tools and machinery, and leave me the land and the empty barns and house, I should be, in respect to the successful carrying on of my affairs, in very much the same plight that I should be as a preacher if Phrenology and all that it has taught me of man, his character, his wants and his improvement, were blotted from my mind.'

'On another occasion he said: 'All my life long I have been in the habit of using Phrenology as that which solves the practical phenomena of life. I regard it as far more useful, practical and sensible than any other system of mental philosophy which has yet been evolved. Certainly, Phrenology has introduced mental philosophy to the common people.' "

ON HEAD MEASUREMENT.

FOR a general answer to inquiries respecting measurements of the head in order to obtain an approximate result showing the volume, we republish essential parts of an essay by the late Mr. James Straton, of Aberdeen, that contain very valuable suggestions to practical phrenologists and to anthropologists. [Ed. P. J.]

It is surely impossible to contemplate the amazing accuracy which instrumental measure has imparted to many departments of science,—an accuracy im-

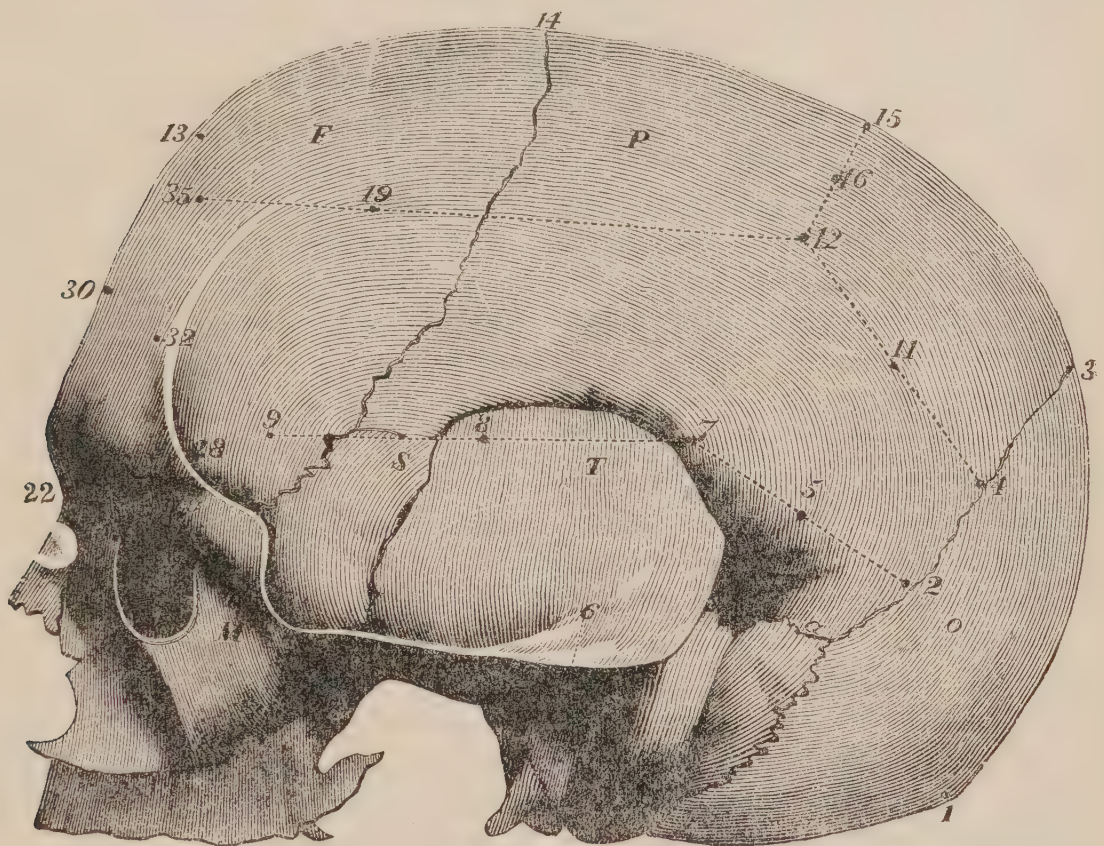
mensely beyond the reach of the finest unaided eye—and not feel a wish that some such services were rendered to Phrenology. It is, indeed, easier to conjecture than to certify why so little has hitherto been done in efforts to render these services. It can not be the difficulties which stand in the way. The human head is not an object which, either by its magnitude or its minuteness, its flexibility or its irregularity, defies either the application of instruments or the powers of calculation. It seems

impossible that those differences in size which are so obvious to the eye can not be measured by some uniform scale, and expressed in terms of definite known value. It may be—(rather must be, shall we say?) that the extensively practised, forgetting their early difficulties when experience has rendered very little mathematical aid sufficient for their individual use, become reconciled to acquired habits, and think little more of those difficulties which they have ceased to feel. Yet, such is not always

for the utmost precision in estimating and recording size, which is, in the nature of the case, practicable.

Believing that improvement was possible, I have attempted it to some extent, and the results obtained have either completed the delusion, or confirmed my conjectures.

I propose, in the subsequent pages,—First, to show how the human head, or cranium, may be measured by very simple means, and with an approximation to mathematical accuracy, sufficient for



POINTS OF MEASUREMENT ON THE SKULL.

the case; for, that the ordinary specifications of size and proportion are all but intolerably painful, vague, and perplexing to some minds, is a fact publicly recorded by friendly hands with much ability; and much more bitterness than comports with beauty in philosophical disquisition. Stand the matter how it may, this much will be readily admitted, that the increasingly rigid requirements of scientific minds, the changing social arrangements, the progress of individual improvement,—in short, the interests of all (except the unprincipled quack) call

practical purposes. Second, to graduate a scale, indicating the average size, the average range, and the extreme ranges of size which have been found among the various races of men.

After measuring the head as a whole, and determining its place in the scale of size, I propose, in the third place, to measure the whole in separate parts; and, fourthly, to determine the relative size of those parts in equally balanced heads:

The principal aim, in measuring separate parts, is to furnish the eye of the

observer with a more definite range or standard whereby to estimate the more minute portions—the individual organs. I have, therefore, attempted instrumental measure to the *least* possible extent only, which would be useful for that purpose. The principal object in view, throughout, is to remove perplexing uncertainties, in attaching a meaning to the language of the masters, and thereby to impart a proper degree of confidence to the student, and, to the more advanced, an uniformity in the estimating and recording of size and proportions, which I believe has hitherto been unnecessarily difficult to attain.

The shape of the human head, or cranium, may be described as partly cubical, and partly spherical. The latter seems to the eye to predominate so much, that, previous to an extensive series of measurements, it might readily be supposed that spherical was the only measure likely to approach accuracy. This mode was proposed in the *Phrenological Journal*, vol. viii., p. 403, and two examples are quoted, which give results very near the truth. I have no doubt of the examples being correct, but they are exceptions to a rule so general, that, according to my experience, ninety-five cases *at least* in each hundred give results varying from 15 to 40 cubic inches below the truth. The following are specimens of the results which I have obtained :—

	Spher.	Proof		Spher.	Proof
Thurtell.....	161	160	Cordonnier...	139	180
Ann Ross.....	87	114	Rev. Mr. M...	145	165
Clara Fisher..	94	117	Allan	116	148
Linn.....	138	180	McInnes.....	116	135
Greenacre....	103	135	Adam.....	116	140
Eustache.....	115	155			

Referring to nature for further proof, I pass from spherical measure as unsuitable for our purpose.

MEASUREMENT IN WATER.

The head or skull may be measured to any degree of accuracy, by making the quantity of water which it displaces in a receiver of known dimensions. This mode is, of course, inapplicable, or inconvenient, in most cases, for the living

head, but as it gives a standard proof wherewith to test the accuracy of every other mode, and can be easily applied to skulls and plaster casts, the following is given as a simple and convenient means of obtaining proofs.

The receiver is constructed as nearly square as possible, 10 inches long, 10 inches broad, and 8 inches deep, inside.

One of the sides is a plate of glass, all the other parts are of deal (pine) well saturated with paint. On the plate of glass is fixed a perpendicular scale, divided into inches and tenths of an inch.

The 0, or zero of the scale, is about five inches from the bottom of the receiver, inside, which is accurately filled with water up to the 0 point before the object be immersed.

In taking measurements the head or skull must be put into the water, with the top lowermost, till the surface of the water touches the articulation of the nasal and frontal bones, and enters the opening of both ears. From the given dimensions of the receiver, it will be obvious that each inch which the water rises on the scale corresponds to 100 cubic inches (*i. e.* 10 + 10), and each tenth to ten cubic inches. The use of a vernier would give single inches, or even tenths of an inch, with equal accuracy, but a practised eye will find the aid of the vernier unnecessary. It is by such means that all the proofs quoted in the following pages have been obtained.

THE CRANIUM.

To simplify the specifications which will be submitted for investigation as we proceed, we may here enumerate the different points and lines to and from which the measurements are taken, and note their places on the several parts of the cranium.

The accompanying plate represents a skull, on which the lines and points are marked.

The anatomical parts are briefly the following—

BONES.—O the *occipital*, P the *parietal*, F the *frontal*, N the *nasal*, M the *malar*, S the *sphenoid*, and T the *temporal*.

SUTURES—The *Lambdoidal* articulates the occipital with the parietal bones, from 3 to *a*, and to the temporal from thence downwards.

The *Sagittal* unites the superior margins of the parietal bones, along the line 3, 15, 14.

The *Squamous* joins the temporal bones to the sphenoid and the lower margin of the parietals.

The *Coronal* touches the sphenoid at each side, and unites the frontal to the parietal bones.

The *Transverse* connects the frontal with the nasal at 22, with the malar at 19, and others more deeply seated.

POINTS OF MEASUREMENT.

1. Occipital spine.
2. Posterior margin of P at half the distance from *a* to 4.
3. Termination of the sagittal suture at the occipital bone.
4. Middle of the posterior margins of the parietal bones.
5. Middle of the straight line from 2 to 7.
6. External opening of the ear.
7. Middle of a straight line from 6 to 12.

On a straight line joining 7 and 28 place—

8. Equidistant from 7 and 9, and
9. Equidistant from 28 and the parietal bone.
11. Middle of the line from 4 to 12.
12. Centers of ossification of the parietal bones.
13. On the middle line of F, equidistant from 14 and 22.
14. Middle of the coronal suture.
15. Middle of the sagittal suture.
16. Half the shortest line from 12 to the sagittal suture,
19. One third the horizontal line from 35 to 12.
22. Nasal vertex or middle of the transverse suture.

23. Internal angular processes of F.
28. Commencement of the temporal ridge.

29. Junction of M with the external angular processes of F.

30. Center of the forehead.

32. Middle of the line joining 29 and 35.

35. Centers of ossification of F.

The numbers selected to indicate the points of measurement, though not in regular series, answer our purpose equally well, and have also the advantage of being related to subjacent parts of the brain.

GENERAL DIRECTIONS.

The specified points of measurement will generally be found to correspond nearly with the centers or margins of phrenological organs, but such is not necessarily or uniformly the case. For our present purpose the anatomical points are to be adhered to, without reference to the phrenological organs.

In some cases local irregularities of surface occur at some of the points, most frequently at 3 and 19. These are to be avoided or allowed for in taking measurements.

The best examples to begin with are skulls or finely executed casts, which show the articulations, etc., distinctly: The most difficult are plaster casts of heads. If these have masses of stucco representing hair, it is impossible to measure them accurately.

The following may be suggested to beginners as an easy mode of preparing to measure :—

Having selected a suitable cast or skull, mark with a pencil or bit of chalk the points 4, 12, 29, and 35; join these by lines, and mark the points 11, 19, and 32. Finish the pointing in the following order :—1, 3, 15, 30, 22, 23, 28, 7, 2, 5, 8, 9.

It will readily be understood that, in taking the measurements which will be proposed as we proceed, an ordinary degree of precision is requisite. Accuracy

within the tenth of an inch is essential. The numbers being all used in evolving cubic results, an error which might appear trifling in itself may assume seriously vitiating importance, when multiplied to the extent unavoidable in the specified calculations.

In measuring, the callipers are the only instruments required. In practice have found the time and labor very much abridged by a peculiar construction of the instrument. It has a scale attached, on which the inches and tenths, "imperial standard," are marked the full length; these can be accurately read as soon as the instrument is adjusted to the intended points of measurement.

CUBIC MEASURE.

The human head, or cranium, may be measured, as an irregular cube, with a degree of accuracy all but perfect.

The average, length, breadth, and height can be deduced from a number of measurements—the more the better for precision; but the fewest by which the requisite accuracy is attained is the best for practical utility.

I think myself warranted by a series of experiments, which it is impossible to detail in any reasonable number of pages, to submit the following, as a formula which fulfils the essential conditions of sufficient accuracy, simplicity, and applicability to every variety of case.

TO FIND THE AVERAGE.

Breadth.—Add the measurements from 5 to 5, 7 to 7, 8 to 8, and from 9 to 9; divide the sum by 4; the quotient is the average breadth.

Length.—The measurement from 3 to 30 is the average length.

Height.—Add the measurements from 6 to 16, from 1 to 3, and from 22 to 13; divide the sum by 3; the quotient is the average height.

Multiply the height by the breadth, and the product by the length. The result represents the Cubic Measure.

EXAMPLE.—R. R. ROY—PROOF, 190.

5.4+6.4+6.2+5.4=23.4÷4 =5.85 Breadth....	5.85
5.6+3.2+2.6=11.4÷3=3.8 Height....	3.8
	190
	3.04
	19.0
	22.230
From 3 to 30..... Length....	8.4
	8.8920
	177.840
Cubic inches.....	186.7320

TABLE OF CUBIC MEASURE.

Heads.	Brd'th.	Heigh.	L'n'g.	Cub. M.	Proof.
Dr. Gall.....	3.9	5.8	7.5	170	174
Rev. Mr. M.....	3.9	5.5	7.7	165	165
R. B. Sheridan.....	3.8	5.6	7.8	165	166
F. Cordonnier.....	4.	6.2	7.2	178	180
Rajah Ra. Roy.....	3.8	5.8	8.4	185	190
French M. D.....	4.	5.8	7.6	176	178
Mr. Goss.....	4.	5.2	8.4	175	178
Robert Owen.....	3.7	5.4	7.6	152	155
Horace Smith.....	3.7	5.6	7.7	160	168
Ann Ross.....	3.3	5.1	6.6	112	114
Clara Fisher.....	3.2	5.1	7.	114	117
ustache.....	3.6	5.6	7.7	155	155
MURDERERS.					
Hare.....	3.3	5.8	7.7	180	180
Burke.....	3.4	8.8	7.8	148	148
Greenacre.....	3.3	8.8	7.3	132	138
Courvozier.....	3.8	6.	7.7	176	180
Thurtell.....	3.7	8.6	7.6	187	190
Dean.....	3.8	8.9	7.3	181	182
SKULLS.					
Robert Burns.....	3.6	8.3	7.6	148	148
Dr. Spurzheim.....	3.7	8.6	7.	148	148
La Fontaine.....	3.8	8.6	7.6	179	180
Swift.....	3.3	8.8	7.2	130	130
King Robert Bruce..	3.4	8.4	7.1	130	130
Gen. Wurmser.....	3.2	8.3	6.9	118	118
Mil. of Vienna.....	3.8	4.9	6.4	94	98
CRIMINAL.					
Haggart.....	3.2	8.	6.9	110	110
Bellingham.....	3.2	8.3	7.1	120	120
Griffiths.....	2.8	4.8	6.9	93	98
Tardy.....	3.4	8.4	7.3	128	130
Chinese Assassin....	3.3	8.1	6.5	109	112
Agnes Clark.....	3.	8.	6.7	99	100
Chatham Convict....	3.2	8.4	7.8	130	130
Buchanan.....	3.1	5.1	7.1	114	118
NATIONAL.					
Icelander.....	3.1	8.2	6.9	110	110
Celt.....	3.1	8.	7.6	117	120
Swiss.....	3.2	8.3	6.6	112	118
Ancient Greek.....	3.3	8.2	6.7	118	118
Circassian.....	2.8	4.6	6.8	84	84
Chinese.....	3.	8.3	6.8	98	100
Hindoo.....	3.1	4.8	6.8	103	105
Native of Java.....	3.2	8.2	6.8	108	110
Papuan Islander....	3.2	8.6	7.	126	130
New Holland Chief..	3.1	8.	7.1	110	112
New Zealander.....	3.1	8.	7.	108	110
Moor.....	2.9	4.8	6.8	88	88
Peruvian.....	3.2	8.1	8.6	92	90
Negro.....	3.1	4.8	6.8	101	111
Ashantee.....	3.3	4.8	7.	121	129
Mozambique.....	3.1	8.1	7.4	117	122
Caffre Female.....	3.	4.6	6.9	98	99
Esquimaux.....	3.	4.7	6.8	96	92
N. American Indian.	3.	8.	8.8	87	89
Carib.....	3.	4.8	7.2	104	106
Peruvian.....	2.9	8.3	8.8	89	92
Brazil Indian.....	2.9	4.6	6.4	88	88
Chilese.....	3.1	8.2	6.8	108	108
Araucanian.....	3.1	8.2	6.8	108	108

The examples given in the Table have been selected from those most likely to be

familiar or accessible to phrenologists in this country. The majority of the casts are from O'Neil of Edinburgh. They are fully described in the *Phrenological Journal*, "The System of Phrenology," by Mr. Combe, and other leading works on the science. Other casts of the same figures will probably differ slightly in some of the measures—will certainly do so, indeed, except taken with great care from the same mould; but such difference will not affect the main question in hand namely, the approximation of the proposed measurement to the proof obtained in water. This, I respectfully submit, is sufficient—

ly near for practical purposes, and sufficiently simple to be applicable to all cases.

A nearer approach to fractional accuracy may easily be made, with the same formula, by those who think it desirable. No extraordinary care has been exercised in preparing the Table. Fractions beyond the first decimal place have been dropped, and the cubic dimensions are expressed in the nearest integers. In short, the aim has been to exhibit such results as the student may readily obtain, after sufficient practice has given an ordinary degree in accuracy of executing the measurements and calculation.

COMING OF THE SPRING.

I feel within my veins
The coming of the Spring;
The singing birds within my heart
Have now begun to sing!
Come from the balmy groves,—
Delicious south winds bow!
The little plants now wait for you,
Beneath the wintry snow!
We soon again shall bear
The cooing of the dove;
And Spring shall with her magic wand,
Attune our hearts to love.
The soaring lark's high notes
Shall pierce the quivering air;
The modest little cuckoo's song
The lower notes shall hear.
The oriole and thrush
To song shall now awake—

And myriads of humbler birds
The minor parts shall take.
The summer blossoms, now,
Beneath the buds are stirred—
The rustling of the future leaves
I almost think I've heard.
Aromas of the fruits
Are rushing like a flood;
The odors from the rose of June
Are coursing through my blood!
The waters teem with life—
The rivers swell and fall;
The mighty depths of ocean move
At Spring's resounding call.
* * *
Sad souls who were not tuned
Through wintry blasts to sing,
May songs of joy swell from your hearts
This coming of the Spring!

GRACE H. HERR.

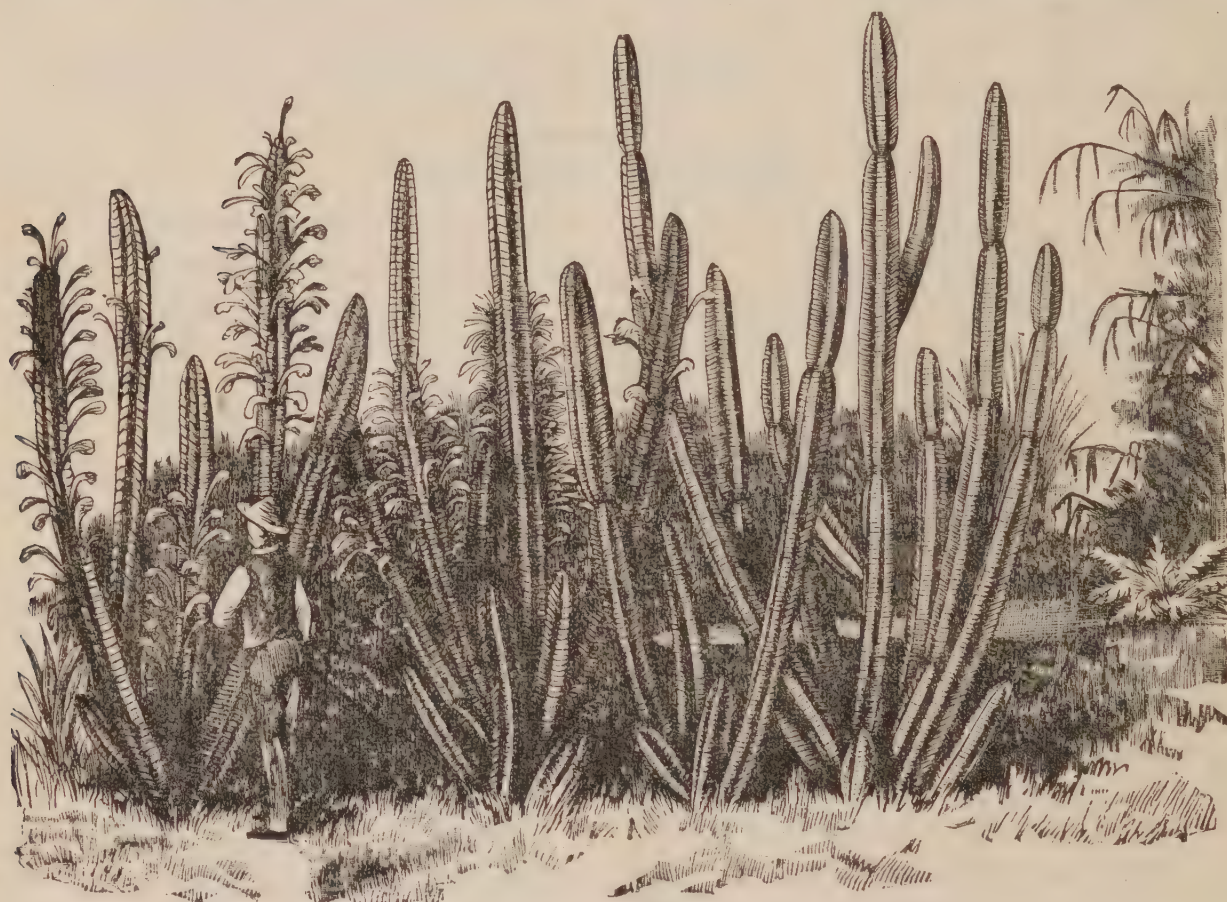
WHAT ONE SEES IN JAMAICA.

A CORRESPONDENT of *Vick's Magazine* gives some of his experiences in the Island of Jamaica, with a description of the life and scenery of that old Spanish settlement. It is interesting to most of us to read of countries that possess the character of Mediævalism, or the remains of an old civilization blending with the modern, as is the case with nearly everything West

Indian. In Jamaica there is enough of the romantic in the character of the people, their manner of life and in the natural scenery to please visitors from the North. Kingston, the leading city of Jamaica, all have heard of. "Then there is Spanish Town or St. Jago de la Vega which is situated near the banks of the Rio Cobre, about five miles from Passage Fort and Port Henderson, near the sea

or harbor of Kingston; and from the time of the conquest, with the exception of one period, has been, till lately, the capital of Jamaica; it owes its name to Louis, the eldest son of Christopher Columbus, who was created Marquis of La Vega; it formerly contained a fort, a monastery, a convent, and a theatre, but no external remains of these are now to be found; since the removal of the seat of government to Kingston it has but few objects of interest to the stranger. The parish church, or cathe-

minates, and a drive of ten miles will bring us to the town of Mandeville, which is beautifully situated on a flat or table land, at an elevation of 2,150 feet above the level of the sea, and is especially adapted by nature to those persons who are seeking change for health or recreation. The tourist is well repaid by taking a short drive of eight miles out of the village, which brings him to the top of Spur Tree Hill; and there he witnesses one of the grandest sights in tropical scenery; spread out before him are



CACTUS PLANTS IN GARDEN, KINGSTON, JAMAICA.

dral, contains some monuments and accessories which may form a study for the archæologist. The Irrigation Works are also worthy of a visit. The Government or King's house, which became vacant on the removal of the Government, is now occupied by a government training college and a theological seminary. Twelve miles farther, by rail, brings us to Old Harbor, a seaport of no particular interest to the tourists, so we proceed to Porus, a small village at the foot of the Manchester hills; here the railway ter-

the plains of St. Elizabeth, a vast panorama; there are those far-famed grazing pens, where some of the best racing studs are bred. These grand park properties, with their undulating slopes and fine old trees, form some of the most beautiful landscapes in the island. There are also many very pleasant walks and drives in the vicinity of the town. A mail-coach, accommodating four passengers, runs to and from Kingston tri-weekly. From this place we proceed by conveyance to Santa Cruz. The

Santa Cruz mountains form a range standing unconnectedly by itself, extending its length from north to south; the highest point is Potsdam, about 2,500 feet above sea level, and is said to be the healthiest and most salubrious spot for invalids in Jamaica. There are a few natural curiosities in the vicinity, such as the Y. S. Falls, the Lover's Leap and the Peru Cave, and scenery quite sufficient to engage the attention of artists for many weeks together. Through Laco-

great taste and cost, bearing evidence of that great store of wealth that was available in the past. The statue of the Lady of Rose Hill (in Trelawney) is here; tradition says she murdered five husbands, and finally she was strangled. A most remarkable thing is the vein of the marble at the neck of the statue, it having the appearance of the mark a rope would make in strangulation, and this mark was not visible when the statue was first erected. The serene atmosphere and ad-



THE Y. S. FALLS, JAMAICA.

via we arrive at the Copse estate, in the interior of the parish of Hanover, where is one of the model sugar manufactories of the island, and also the celebrated grazing pens of Knockalva Ramble, Haughton Grove and Shettlewood. The Christmas prize oxen are mostly taken from Knockalva. Montego Bay, the extreme north-eastern town of the island, is blessed with a never-failing spring of the purest water. The parish church here contains many monumental marbles, tablets and mortuary mementos of

mirably clean streets, together with a well-supplied market, make Montego Bay a pleasant and interesting enough town to spend a week at in "doing Jamaica as a Tourist." The journey from Montego Bay, along the sea coast passing through Falmouth to St. Ann's Bay, will be somewhat monotonous. But the traveler will be amply repaid by taking a drive from St. Ann's Bay to an elevated spot, a little beyond Ochio Rio's, which includes the Roaring River, with its falls. There are also other objects of interest

such as the Columbus and Bull Rock Caves, and the Light Hole, and another Cave in the Dry Harbor mountains nearby. One special feature on the pen and estate pasture lands is the valuable Pimento tree; thus the beauties of the place are characteristic. There is nothing of the bold grandeur of massive rocks towering upon rocks in their native garb for the scenes are all more or less gradually receding, and the tree foliage interspersed everywhere takes off every sharp line which might elsewhere appear. From St. Ann's Bay, we again make for the interior, and arrive at the Moneague, a small village at the foot of Mount Diablo, noted for its picturesque scenery and views of singular beauty. A few miles farther is Ewerton, the terminus of a new branch of railway from Spanish Town; thence, passing through the Mount Diablo tunnel and skirting the dams of the Irrigation Works at the Bog Walk, we arrive at Spanish Town, and in an hour's time can return to Kingston.

"A few words in regard to routes and

methods of travel may interest intending visitors to our island. The best time for northern travelers to come to Jamaica is early in November. Steamers of the Atlas Line run direct from New York to Kingston, and make the passage in six to six and a half days, with excellent accommodations and fare. Hotel charges are about two dollars and a half a day. Tram-cars traverse the main streets and outskirts of Kingston.

"The Port Royal Mountains and Cinchona can only be reached by carriage to Gordon Town, where mountain ponies are hired at eight shillings, two dollars a day. There are fifty miles of railway from Kingston to Porus, where a mail coach connects for Brooks' Hotel, Mandeville, Spur Tree Hill, Santa Cruz, etc. From Lacovia to Montego Bay the distance must be passed by hired conveyance; from Montego Bay to St. Ann's Bay by mail coach, and in the same manner from St. Ann's Bay to Moneague and Ewerton, and thence by a short branch of railway to Spanish Town."

"A DARLING."

TWO old friends who had been parted for years met in a crowded city thoroughfare. The one who lived in the city was on his way to meet a pressing business engagement. After a few expressions of delight, he said:

"Well, I'm off. I'm sorry, but it can't be helped. I will look for you to-morrow at dinner. Remember, at two o'clock, sharp. I'm anxious for you to see my wife and child."

"Only one child?" asked the other. "Only one—a daughter," came the answer, tenderly. "She's a darling, I do assure you."

And then they parted, the stranger in the city getting into a street-car bound for the Park, whither he desired to go.

After a block or two, a group of five girls entered the car; they were all

young, and evidently belonged to families of wealth and culture, that is, intellectual culture—as they conversed well. Each carried a decorated lunch-basket; each was attired in a becoming spring suit. Doubtless, they, too, were going to the Park for a spring pic-nic. They seemed very happy and amiable, until the car again stopped, this time letting in a pale-faced girl of about eleven, and a sick boy of about eight. These children were shabbily dressed, and upon their faces there were looks of distress mingled with some expectancy. Were they, too, on their way to the Park? The gentleman thought so; so did the group of girls, for he heard one of them say, with a look of disdain:

"I suppose those ragamuffins are on an excursion, too."

"I shouldn't want to leave my door if I had to look like that. Would you?" This from another girl.

"No indeed! But there is no accounting for tastes. I think there ought to be a special line of cars for the lower classes."

All this conversation went on in a low tone, but the gentleman had heard it. Had the poor girl, too? He glanced at the pale face, and saw tears glistening in her eyes. Then he looked at the group of finely-dressed girls, who had moved as far from the plebeian as the limits of the car would allow. He was angry. He longed to tell them that they were vain and heartless, as they drew their costly trappings closer about them, as if fearful of contact with poverty's children.

Just then an exclamation, "Why, there is Nettie! wonder where she is going?" caused him to look out toward the corner, where a sweet-faced young girl stood beckoning to the car-driver. When she entered the car she was warmly greeted by the five, and they made room for her beside them. They were profuse in their exclamations and questions.

"Where are you going?" asked one.

"Oh, what lovely flowers! Whom are they for?" questioned another.

"I'm on my way to Belle Clark's. She's sick you know, and the flowers are for her."

She answered both questions at once, and then glancing toward the door of the car, she saw the pale girl looking wistfully at her. She smiled at the child, a tender look beaming from her beautiful eyes; and then, forgetting that she, too, wore a handsome skirt and costly jacket, and that her shapely hands were covered with well-fitting gloves, she left her seat and crossed over to the little ones, and laid one hand caressingly on the boy's thin cheek as she asked of the sister:

"The little boy is sick, is he not? And he is your brother, I am sure; he clings so to you."

It seemed hard for the girl to answer, but finally she said:

"Yes, miss; he's sick. Freddy's never been well. Yes, miss, he's my brother. We're goin' to the Park to see if it won't make Freddy better."

"I am glad you are going," the young girl replied in a low voice meant for no one's ears except those of the child addressed. "I feel sure it will do him good; it is lovely there, with the spring flowers all in bloom. But where is your lunch? You ought to have a lunch after so long a ride."

Over the little girl's face came a flush.

"Yes, miss, mebbe we ought to, for Freddy's sake; but you see, we didn't have any lunch to bring. Tim—he's our brother—he saved these pennies purpose so's Freddy could ride to the Park and back. I guess mebbe Freddy'll forget about bein' hungry when he gets to the beautiful Park."

Were there tears in the kind girl's eyes as she listened? Yes, there certainly were; and very soon she asked the girl where they lived, and wrote the address down in a tablet, which she took from a bag upon her arm.

After riding a few blocks the pretty girl left the car, but she had not left the little ones comfortless. Half the bouquet of violets and hyacinths were clasped in the sister's hand, while the sick boy, with radiant face held in his hand a package, from which he helped himself now and then, saying to his sister in a jubilant whisper:

"She said we could eat 'em all—every one—when we got to the Park. What made her so sweet and good to us? She didn't call us ragamuffins, and wasn't 'fraid to have her dress touch ours? And she called me 'a dear,' she did. What made her, Sue?"

And Sue whispered back:

"I guess it's 'cause she's beautiful as well as her clothes—beautiful inside, you know?"

The gentleman's ears served him well. He heard Sue's whisper, and thought:

"Yes, the child is right; the lovely young girl is beautiful inside—beautiful in spirit. She is one of the Lord's own. Bless her!"

When the Park was reached the five girls hurried out with laughter and merry talk. Then the gentleman lifted the little boy in his arms and carried him out of the car, across the road and into the green, sweet smelling Park, the sister with heart full of gratitude following. It was he who paid for a nice ride for them in the goat carriage. He also treated

them to oyster soup at the park restaurant.

At two o'clock the next day the two gentlemen, as agreed, met again.

"This is my wife," the host said, introducing a comely lady, "and this," as a young girl of fifteen entered the parlor, "is my daughter, Nettie."

"Ah?" thought the guest, as he extended his hand in cordial greeting, "this is the dear girl whom I met yesterday in the street-car. I don't wonder her father calls her a darling, and no mistake, bless her!"

THE DATA OF UNIVERSAL KNOWLEDGE.

THE domain of thought is far-reaching; yet there is more beyond, and man with his massive intellect is destined to explore the vast fields of universal science. The mists and clouds of error and superstition are now scattering to the four winds of the earth before a civilization that surpasses anything the world has ever seen. The decadence of art and literature, and the loss of 700,000 volumes during the Dark Ages, are, in one view, to be regretted as barriers in the way of human progress; but they are more than counterbalanced by the inventive genius of the nineteenth century. The laws of nature are certainly better understood than ever before—unless history is repeating itself—and we who have gathered up fragments of knowledge from the history of the past have much more to hope for in the future. Our knowledge has heretofore been largely mixed with error; but, by diligent research and patient investigation, nature has yielded her secrets to such an alarming extent that we may hope for a true science and a true philosophy to be established on the earth, and that all the laws upon which our well-being depends may be perfectly understood. The demands of our nature bring us into intimate relations with this active world of wonders, which moves along by unvarying laws, and our experience, if we

give attention to it, will make us acquainted with these laws.

The terms of this subject lead us to consider the present state of advancement in knowledge, and the possibilities of unprecedented attainments in the future. Three or four centuries ago our ancestors were little better than barbarians, and farther back the Scandinavians, that overran the middle and south of Europe, were almost degraded to savagery. Among the Christian world there were the imperfectly developed elements of a religious faith that needed the agency of time for their perfect development and dissemination among the nations of the earth. The philosophies of Plato and Aristotle ran in devious channels down through succeeding ages, but they were the products of a diseased imagination—mere speculations upon one side of the great problems of life, lacking the ballast of Christian elements to bring them to the medium from which one may see the coincidence of science and revelation.

Let us turn the page of history and see how strange were the first notions that led to the great discoveries of science. For a long time the philosophy of combustion and heat seemed to be settled upon the hypothesis of caloric, but this could never be made susceptible to demonstration. It was very consist-

ent with the law of cause and effect, but in any attempt at demonstration this supposed cause could not be harmonized with any known laws.

This served, however, to awaken research and investigation in the direction of a true solution. The next advance was the hypothesis of phlogiston which assumed the existence of a rare ethereal principle which existed in all bodies capable of burning, and that in the act of combustion phlogiston escaped, and that the burning was caused by its escape. The tendency of those earlier times was to materialize all the forces of nature because the scientists wanted to take a stand on one side or the other of the great line that divided realism and idealism, and refer all phenomena wholly to the one or the other.

Within the last century demonstration has shown that the forces of nature are immaterial and that they are inherent in matter and persistent. So, for the first time, science is about to take her stand on the line between the great combatting sides of realism and idealism and show her dependence alike on both for the solution of the great problems of life.

Knowledge is power and it has given this wonderful impulse to the world's activities. The age of Fire, Evolution and the Correlation of Forces are almost household words, especially among that class that may be termed intelligent. Within the last century the age of Iron has so monopolized the civilized world that roads of iron, traveled by iron steeds which drag whole townships after them and outstrip the birds, have become our commonest highways.

A large part of our knowledge assumes the character of the historical as regards its invention, but is nevertheless scientific as regards the nature of its subjects. We thus have the experience of a large part of mankind as supplying the place of our own experience. Evidence, then, as an instrument of logic, is a source of knowledge more fruitful

than our physical senses. With the demonstrated facts of our present knowledge we may reason by an inductive process to the universality of their application. The book of nature is complete and perfect, and the evolution from the pages of this volume will add to our stock of acquired knowledge.

From the present standpoint the outlook is promising, and presents a grand prospect of the undiscovered that lies just beyond the borders of the present state of advancement. Each science is adding a liberal share to our present date for unsurpassed attainments. The records of antiquity are enabling men to explore the mysteries of gone-by generations, while chemistry and philosophy are simplifying the laws of life and dispelling the mysteries that constituted its intricate problems. D. N. CURTIS.

"HONEST" VILLAINY.—A Boston Weekly publishes the following incident: As revealing a profound faith in the trustworthiness of Phrenology, the following case leaves little to be desired. The observation was made by Captain Kennedy in command of one of Her Majesty's ships upon the Pacific coast. It shows an unusual splitting up of the moral sensibilities when a man can practice villainy, and at the same time have the honesty to own that it is villainy. Writing of San Blas the captain says:

I fear the morality of this place is at a very low ebb. On one occasion I gave a passage to an individual residing not a hundred miles off. This man had been to San Francisco on special business, and was returning home. He told me he had done pretty well, and showed me, with great pride and satisfaction, a number of labels to be pasted on cigar-boxes, the said cigars being manufactured on his premises.

Every well-known Havana brand was represented, having been very exactly forged in San Francisco, so that, as he explained, his customers could be supplied with the best article at the shortest notice, and at the lowest possible price.

Besides these, he had a large collection of assorted wine-labels, fac-similes of the most famous brands, to be placed on his own bottles containing the most abominable compound.

On my asking him if he considered this style of dealing to be honest, he said, "Well, Captain, fact is, when I was in California I went to a phrenologist, who examined my head carefully for some time without remark; at last he exclaimed"—

"Why, sir, you *must* be a scoundrel!" And the man added, with ingenious candor, "I *am* a scoundrel."

SHORTHAND FOR THE MANY.

AS a skilful attainment acquired by self-instruction or in the schools, as a literary-mechanical art adopted by many as a profession, as a kind of legerdemain cultivated by unwearied practice, shorthand occupies an unique place among the world's work—its trades, professions and accomplishments.

Some reader may ask, what is shorthand? Phonography and shorthand have been used synonymously a great deal, and phonography—as its derivation implies—is sound writing. To be more explicit, it is writing by a scheme of characters, with only the sounds of language for its basis, and not by alphabet, the letters of which are inconsistent in sound and illogical in their application, partly for historical, and in part for imaginary reasons. Practical shorthand is *not* phonography pure and simple; it bears the same relation to it that abbreviated longhand (say: Jan. 1st, Dr. Sr: Yrs reed etc.) does to the full text. Shorthand is condensed phonography. To write abbreviated longhand one must know it *in extenso*; likewise to write shorthand one must first learn phonography.

As a vocation shorthand writing has generally been associated with courts of law, legislative bodies, and the newspaper office. Its function in each and all of these is well-known. More recently the business house has found it valuable, and it is astonishing how rapidly it has grown in favor in this connection. At present no business concern of any importance can do without its letter-writer, which makes a lively demand all the time for the less proficient stenographers. Coextensive with the spread of shorthand in the commercial world has been that of the writing-machine, and the two now progress side by side. In the olden time the court reporter transcribed his notes laboriously by hand, and court and counsel were obliged to await the time or pleasure of

the transcriber. In this age the “takes” of one session are cleverly printed in clear-cut, typewritten text for the sitting of the following day. If shorthand, before the advent of the typewriter, facilitated the operations of law, who can estimate the present saving of time and expense? What clouds of litigation it now assists to clear away! The typewriter is also to be heard clicking in the newspaper office; lately the telegraph operator has adopted it, and nightly reduces to plain print the tedious press despatches which formerly were the bane of his existence—the speed of his work being only limited by the skill of the sender at the farther end of the line.

The above is but a hackneyed description of the more familiar uses of shorthand, but there is more to be said. Its scope is widening. Concurrently with its spread in business operations has been its introduction in other and almost unthought of circles of activity.

The author employs it more and more either personally or through an amanuensis, who is equipped with a writing-machine, of course; and when the “glow of composition” makes ideas troop in for utterance, no “fine frenzy” can disconcert his gifted secretary, or render futile the facile pen, but the master's every thought is faithfully recorded. The historian all loaded with facts and figures, taps the signal bell, and his scribe appears. It is the trouble of but a few hours to dictate thousands of words, and the principal is then ready for more research. And best of all, the copy thus prepared, if by typewriter, is legible in the extreme, and agreeable alike to author, compositor and proof-reader. We doubt not the compositor, when speaking well of his fellowmen, adds a word of praise for the typewriter!

Life insurance is a business conducted largely through correspondence with the home office, intercourse being had with representatives in all quarters of the

globe. The stenographic department of the great insurance companies is a distinct and important one; and in summarizing the remarkable development of life insurance in the last decade, we think shorthand should be acknowledged a factor, and given due credit.

The preacher sometimes writes his sermons in the mystic characters, and if he can insure legibility, much is gained. A glance takes in whole phrases and paragraphs, and his discourse possesses many of the elements of impromptu utterance. An office-block, where lawyers and real estate men congregate, is not entirely tenanted unless it holds one or two stenographers (ladies perhaps) who, with typewriter and shorthand skill, make themselves vastly useful in their sphere. And the latest departure we have noted in this connection is the locating of a shorthand writer in the corridors of the hotels in the larger cities, where side by side with the telegraph operator the writing-machine may be heard clicking at the instance and for the convenience of the busy traveller and guest.

The common aim of the system-makers, it would seem, has been to educate the public to think that shorthand was a phonetic method of language representation, and as such easy to acquire; taking the ground that a scientific scheme of writing would appeal more strongly for popular support. The phonetic idea is easy of comprehension; it is logical; as a discovery it deserves to take rank with the greatest. Then it has been stated that the mere principles of phonography can be understood after two or three hours study; and more recently an instructor advertises to teach shorthand in twelve hours. Does it not seem that shorthand ought to be the accomplishment of the many, if it can be acquired in so short time?

At the same time shorthand is the vocation of the few. All these efforts to make a knowledge of it more general seem not to have been entirely successful. Certainly the practice of it has

grown, but great credit can not attach to the plan of study pursued, when perhaps not more than five in fifty have succeeded! Outside of those who fail for physical and intellectual reasons are those who accomplish next to nothing, because of the non-practical character of the instruction given. A two or three hours' examination of phonography is but a superficial view of the subject; it does not furnish the practice essential to success. A child can instantly smash a watch, but it takes an artist a long while to put it together again.

True, shorthand is difficult of attainment; granted, it has but few points of comparison with the trade of the artisan or with language study, (there being an element of speed not involved in the latter) but partakes somewhat of the character of both; admitted, that the teacher has more to contend with than the professor of Greek or the master-mechanic; what then? There are many difficult things to be encountered in this world, but the ability and ingenuity of men has overcome them. What professor of languages, what master of apprentices, would be satisfied with the measure of success which follows the teaching of shorthand? Therefore it must be inferred that there is something radically wrong in the way shorthand has heretofore been presented.

To sum up, practical shorthand has been for the few because it is a difficult, and at first an uninteresting study, and the self-taught have been unable to sift the wheat from the chaff of the average textbook; because it requires more or less natural aptitude and dogged perseverance to conquer it; because if taught at school they are befogged with the "correspondence style," or mere theory, and too many teachers are but classroom phonographers; because the profit of teaching has been so great that mountebanks have engaged in it, and the illiterate have been encouraged to study the art. Too many have been taught to write, but seldom to read, and too many

enticed into it without thought as to whether they were fitted for the profession, or whether the same would be congenial, if a working knowledge was ever gained; so that after all, the majority of those now following the business are the ones who neither attempted a twelve-hour method nor dallied with the style of slow writing, but rather ploughed into business-like shorthand in a business-like manner—studied early and late—reaped reward from repeated disappointment, and finally achieved success not because of the merits of any system, but as the result of healthy endeavor, and largely because they were born to write shorthand.

It is obvious that shorthand thus acquired must be for the *few*, and the intent of this article is to briefly outline a method by which it may be for the *many*. Half of what the new procedure ought to be has been already foreshadowed in this statement of what ought not to be.

The teaching of shorthand has become an established branch of the profession, and it is for the teacher we politely submit the following: In 1882 there were over 340 teachers of shorthand in the United States, and nearly 12,500 students; about 10,000 of whom were in the schools and colleges, and the remainder taking lessons by mail. Many practical stenographers occupied their evening hours teaching, and we doubt not they magnified their office; but the record of results gives ample hint that there is room for improvement in the methods employed. As a recent writer has said, "What is wanted is not a new and better *system*, but a better teaching of the old system."

The first question commonly asked by the prospective shorthander is—"How long will it take to learn it?" A method of instruction, to reach desired results in the shortest time consistent with the importance of the subject, must be shorn of all redundant, impracticable features; it must contain the pith of the textbooks, the essence of all recent discovery and

invention as related to the art, and at the same time present an orderly arrangement of the same. It must not be a treatise upon orthography; it need not wander off into spelling-reform. It should seek to impart the salient points of necessary principles in a direct, concise manner.

An important requisite of a practical plan of instruction is, that it be made interesting—even entertaining. The hardest part of teaching shorthand is to excite and maintain the interest of the pupil; to keep up his courage when difficulties appear. Hence, the method of the future should combine amusement with instruction; it must exhibit to the scholar the amenities as well as the difficulties of the study. If the interest is aroused and retained, the battle is half won.

All the essential principles, if divided into lessons, can not be made to comprise over twenty reasonable tasks for students of ordinary ability. This arrangement should, of course, be orderly and progressive. Daily study of from two to three hours, according to such a division of the subject, will enable the average inquirer to acquire a working knowledge of the art in three or four months' time.

Instruction to be truly practical can not give too great prominence to *reading* as well as *writing*. Much shorthand text for reading practice should be provided in the fluent style common to swiftly written stenography. The best reading practice can not be derived from the geometrical shorthand of the textbooks; the flowing outlines of the stenography of "commerce" should always be given the preference.

Then again "word-signs" and natural phrases should be introduced in this proposed plan at the very start. The simple consonant strokes should be accompanied by simple word-signs; when the hooks and other appendages are added, have the pupil take on word-signs with hooks and kindred appendages; and so

on through the course. The power of the pupil in knowledge of word-signs should strengthen with his strength in other directions. They are the most valued accessory of swift writing; a practical method of instruction should store them in the mind for use when the time for rapid writing arrives.

To conclude, this plan should give especial prominence to those principles of

particular difficulty; it should direct to a proper sequence of effort; recommend and illustrate only sensible rules of procedure; give common-sense advice from the point of view of the practical and practicing stenographer, and so accomplish, in fact, the object of shorthand endeavor—an efficient, bread-winning knowledge of stenography.

BATES TORREY.

MARY'S VISIONS.

ONLY a year ago, there was a little child, the most angelic child I had ever known, who came to see me every day and often many times a day. He would sit by my table when I wrote, and he would write, too, in his curious little characters. He was interested in whatever I was doing. He seemed most loyally devoted to me; always asking to go with me whenever he saw me, hugging me so tight I never could or would release him or refuse his request. I never saw a face whose ethereal beauty surpassed his. I have never seen any one of mature age showing more courtesy, gentleness and grace, than this little child of only three years. He had the keenest sense of humor, the daintiest way of asking, and the most artless, graceful way of thanking you for the least favor. When he left me, he always said, "Kiss me Billerard," for Billerard he always called me. With his mother's grace and nobleness of manner, he had his father's great musical gift. The last time he came he sang for me:

I have a Fader in de promised land,
When my Fader talls me I must doe
To meet him in de promised land.

A few days after, his Father called him—and he has gone. The little fellow has left a loss in my life that nothing quite fills. I long for one more glimpse of the face I saw beaming through the Christmas tree last year; I want to hear him say once more, "Billerard Kiss me."

There is no being in the world that ever speaks or acts perfectly unconsciously and naturally save a bright, happy child whose best feelings have never been repressed. When such a child offers you his friendship, and clings to you, there is something worth loving in you.

"I know how you feel," said Mary, "about little Percy." Mary has been spending the afternoon with me. "Thirty-five years ago to-day," she said, "just such a joy was taken out of my life. My little sister was very lovely, with golden hair, deep blue eyes—such a wise little thing and only three years old, yet so affectionate, gentle and cunning, that I felt before her I must always do my best. I was ashamed to show any impatience or irritability in her presence. Her pure, beautiful life, was a great help to me. How many little songs she sang, how many bright things she said. I thought she would be my companion through life—but she was so soon, so suddenly taken from us. She knew she was going. It was the first I had seen or thought of death. Her eyes were so clear and bright, as if she were looking joyfully off into some happy world whose shore she saw before she reached it. I knew she had not gone off into any dark unknown. My mother said, 'Hattie has gone home.' Gone home! I could not quite comprehend it. How often I longed once more to rock her to sleep in my little chair or to hug her in my arms. I was then all the child mother

had left, and from the moment Hattie died, mother seemed to take me closer than ever to her heart. She let me think I was helping her and taking care of her. When she made cake, I made a cake, when she made bread I moulded my little loaf; when she made pies, I had my little rolling-pin to make my pies just like hers.

"We lived in a very old fashioned-house. I was making, one afternoon, a little pie. In order to get to the pantry where the sugar was stored I had to go outside and cross a little open space. I had filled my pie with berries; I wanted more sugar and as I stepped out into the open space I was only thinking of my pie, and yet I looked up, and in the air I saw my sister—my own little sister, so beautiful and bright. I was so startled, yet delighted, I called out pointing upward, 'O mother! mother! do look! look! Hattie has come back!' My mother looked up and fell back and swooned away. The doctor was called; he asked what had happened; I told him what I saw, and how my mother had looked up and fallen. 'If she gets well, child,' he said, 'never say anything about it to your mother.' It was days before my mother was herself again; her right arm was partially paralyzed, and it never quite recovered its old strength. This face of my sister, as I saw it then, was far more real, more vividly impressed upon my mind, than any face of any living friend. If I was an artist I could now paint it perfectly; every line I can see distinctly. I wish I could only tell you how real it is. I do not wonder about it, or doubt about it; *I know I saw it.* My mother never spoke of it again until years after I sat by the cradle of my little boy—then she said, one day, that little face, as we saw it years ago, was the most perfect picture she had in her soul; no trace of it ever faded from her recollection.

"I lost my father a year before I was married. He had often said he hoped he might live to see a child of mine.

Two years after I was lying on my bed, in my own house one afternoon. By my side was my little boy, only two days old. My mother and nurse had said, lie still and rest; we will go into the other room; you can have a good sleep. But I was not at all sleepy. I lay there in supreme content wishing my father could only have lived to have seen my boy when, as if by some sudden impulse, I looked toward the door of the room and there, coming toward me in the same dress he wore when I last saw him, was my father. He wore a green coat, I remember. He approached the bed, and bending over, looked into the face of the child and smiled, so satisfied, so pleased he seemed. I called out, 'O mother, mother! father's come to see the baby.' She came quickly at my call, but he was gone. I did not reason about it or doubt about it—I felt I had seen my father. Years after, I was very sick in bed, my sister was terribly burned by a sudden explosion, and in a short time must die. I could not see her to say farewell; but I sent her word I would be a mother to her children. She died, thankful for that, and deeply regretting that she could not have seen me once more.

"That night as I lay on my bed, grieving because I had not seen her, my sister approached my bedside and looked into my face serenely and gratefully, as if she would say, as far as a face could say, 'I am content; I come to greet you and to thank you; do not grieve for me,' and she vanished as she came. From that time, I felt that she knew how much I longed to see her, and how faithfully I would keep the trust confided in me.

"I am an uneducated woman, but I believe in the Bible. I love and trust in the promise of God, and I am grateful I have had these three visions of my lost friends to comfort me. Death has never had the least terror to me since I saw my little sister. I think of going to Heaven just as I think of going to any

other country. I do not think of it as a land of ghosts."

Mary was sent for, to come home; some one was waiting to see her, and another friend, soon after, came in, and we continued the same subject. She said: "A few years ago I had been taking care of a little, sick boy, whose mother had died a year before. He had been visiting me and was taken sick with a fever. He was a wilful, impetuous, positive little fellow, and he would let no one do anything for him, no one watch over him but me. My husband began to feel that I was losing strength—that I must have some one, part of the time, to take my place at the sick-bed. But I felt that the boy was so very, very ill that any change, just then, might excite him and bring on delirium or death. Hardly able to keep my weary eyes open another hour, I prepared as usual for a long night of watching. The physician said that the morrow might determine whether life or death would be the result. In the night the boy tossed restlessly about. I was thinking how long will my strength hold out—when at midnight there came to me as quietly and as really as friend ever came, the boy's mother, and said to me. 'You may rest, Willie will get well.' The boy was soon quietly sleeping, and after that I had a long peaceful rest. When I awoke the boy's fever was gone; he looked at me and said. 'I think my mother has been here, hasn't she? I saw her bending over me.' The boy soon after recovered."

Another friend of mine, a very noble, lovable woman, was once engaged to one she had long loved. They had planned for a happy life together, when he was called away to join the army. He there received a wound, resulting in brain fever, and ending in hopeless insanity. He was confined in a private retreat. One night, just at ten o'clock, as she lay thinking of some papers she must prepare in the morning for some society of which she was secretary, all

at once there silently glided in and stood beside her bed, her lover. On his face there was a wistful, tender look, as if a greeting and a parting—and he was gone.

She soon had tidings that he had died that night at ten o'clock.

Another friend, who was early left an orphan, had taught for some time a school in a small town. The income from this was her only means of support. There was only one room in the place suitable for her school. This she had used for some time and secured for weeks to come.

The quarter of ten weeks was half through. The room was a pleasant one and she was very happy in her school. One day the landlord came to tell her she must give up the room in two weeks as he had another use for it. He was quite positive and peremptory about it. It would break up her school and cut off her income. There was no place to go, and she grieved night and day at the disappointment. But, there came to her the strongest possible impression in these noiseless, voiceless words as she was grieving most: "Do not grieve any more—all will be right." As if at the command of a superior power, from that moment, she grieved no more, believing that all would be right in the end. In just two weeks from that time the landlord, then in health, suddenly died, and she kept the school as long as she wished.

I have been told by those I must believe, that they have been impelled suddenly, as if by telegram unseen, to go to some spot immediately, where they have met one who has so hoped for and helped them, they have been lifted up out of some despairing strait of circumstance. "I was in my mother's home one night," said a gentleman; "it was growing late and there was a storm outside. The glowing fire was in front of me, a book in my hand. I sat in dressing gown and slippers reading. The comfort and cheer within was a pleas-

ant contrast to the storm without. I heard the wind moaning through the trees, and I was heartily glad I was so comfortable. I had reached the most interesting portion of my book, when all at once I felt that I must leave it, and go immediately to the house of a friend more than half a mile away. 'You are crazy, Edward,' said my mother, 'to go out such a night in this blinding storm to see anyone. The snow is falling and even you might lose your way.' But I felt that I must go. I never remember having so strong an impression before. Almost blinded by the snow I did lose my way a little, and I went on beyond my friend's house, when I heard a young girl's voice near, feebly moaning and crying. She had lost her way and had wandered far from her home, and was almost exhausted when I found her. I took her to my friend's and it was all we could do to restore her exhausted strength. Had I not found her just then she would soon have fallen, chilled and paralyzed by the cold. Her life was saved, and I have never forgotten the incident." I believe that great inventions and discoveries have not so often originated and progressed, from repeated observations or multiplied probabilities, as from inward impelling intuitions resistlessly urging the discoverer to press through a legion of obstacles, outreaching conjectures and defying enterprise itself. No mere tradition, history or probability gave Columbus the judgment to divine, the intrepidity to face the mysteries of the perilous deep—nor gave they him the granite faith, the iron purpose, to seek until he found that Western world. For eighteen long years before he breasted the ocean wave, inspiring, prophetic voices, came to him across the river of Time, as clear and real as the song of the tropical bird came at last, with golden wing, fresh plumed from the unseen nearing shore of the land of his dreams. Unto him at night, when footsore and weary, begging

from country to country, pleading from throne to throne, came a voice in a dream, "God will give thee the keys of the gates of the ocean." And unto Franklin, weighed down by the pressure of great events, their bearing and issue were often clearly unfolded in midnight dreams. These days of dreams and visions are over, say some, "They were Bible times." Bible times! Bible times began long before Bethlehem's star-lit morning, and they will not end when the evening stars shall sing together Time's last good-night.

Over our heads still the same angels hover, and above them still the Great All Father guides and directs their swift-healing, helping wings.

LYDIA M. MILLARD.

SPOILING CHILDREN.—" 'I try so hard to make my children happy,' said a mother, one day, with a sigh in despair at her efforts. 'Stop trying,' exclaimed a practical friend at her elbow; 'do as a neighbor of mine does.' 'And how is that?' she asked. 'Why, she simply lets her children grow and develop naturally, only directing their growth properly. She has always thrown them as far as practicable upon their own resources; and taught them to wait upon themselves. When she returns home from an absence, they wait but one thing—their mother's kiss. Whatever is bought for them is bestowed when the needed time comes. Nothing exciting is allowed them at night, and they go to bed and sleep in a wholesome mental state that insures restful slumber. They are taught to love nature; that there is nothing so mean as a lie, nor anything so miserable as disobedience, and that good health, and good temper comes from plain food, plenty of sleep, and being good.' "

Let a child learn early that future good is worth the sacrifice of a momentary pleasure that will not bring lasting gain.



HEALTH PAPERS—NO. 3.

IF drugs are curatives, some well-defined relation must exist between them and the diseases they cure, or are supposed to cure. The task of showing what this relation is, must devolve upon those who use them, or who advocate their use. If any one is sick, because he or she has not taken drugs, or remains sick for the same reason, the rational conclusion is that he ought to take them and get well.

But no advocate of drug-taking of any pretensions to intelligence and sound judgment, claims that the want of drugs, or abstinence from them, is ever properly to be considered as entitled to a place among the causes of disease. People get sick from bad habits of living; they eat and drink, breathe and sleep, work and rest, and do many other things without any regard to the physical, mental or moral laws to which they are subject. Whatever is the style of their set, or of the clique or coterie to which they belong, no matter how high or how low it may be in the social scale is accepted as a rule of thought and of action. If this rule prescribed the use of alcohol or tobacco; of opium, betelnut or hasheesh; of tea, coffee or cocoa; of cayenne pepper or mustard; of animal-flesh or animal-fats; of oysters, clams, frogs or any other article of food; drink or dissipation, it is used; and its use is defended with a zeal

worthy of a better cause. The same remark applies with equal force to the use, and defence of the use, of drug medicines. It has not been and can not be proved that the sick need them, or are at all the better for using them. What is, and has been taken as proof of their utility, will not bear the test of critical observation or of sound logical reasoning. Is it here claimed that people take medical prescriptions and get well? People also get well without taking them. Many take them and get worse. Chronic invalids abound who know—whose medical advisers have told them—that their afflictions have been greatly aggravated, if not wholly caused, by what was at the time considered scientific medication. Every careful student of the nature and causes of disease well knows that the victims of indigestion, of inebriety, of insomnia, of insanity and of a long list of functional and organic disturbances may trace the origin of their physical and mental troubles to the use of drugs, for the removal of ailments which, with reasonably good nursing, might have been more successfully removed. Who dares to assert that the slave to alcohol, to opium, or to tobacco, to chloral, bromide, cocaine or any other like thing would not be greatly the better for never having used them, even if it is undeniable that at the time

the results appeared to justify their use? The history of such enslavement, in no small proportion of cases, points to the administration of these drugs professionally, as the first step toward the fearful goal where all is wreck and ruin. If the wise and good men of the profession could be induced to inform themselves more fully, and could fix a just estimate upon the results of their work in undesirable directions, could they with an approving conscience assume the fearful responsibility that attaches to it? Many of them, as will hereafter appear, have shown increasing weakness of faith, and have given it expression in language that can not be misunderstood or misinterpreted. The changes so constantly taking place in medical theories, and in medical practice, illustrate the shallowness of the boast that medicine is a science. The principles of all true science are immutable. The assumed facts of medicine are constantly under-

going mutations. No intelligent physician would now wish, if he dared, or dare if he wished, to go back to the ideas and methods of fifty or even twenty-five years since, much less to those of five hundred or a thousand years. In a single decade of what is called "progress" we shall hear the practice of the present styled old and stale. The theory of cure by the use of drugs continues to enchain the professional and the non-professional masses. "New remedies" are introduced and heralded as reliable specifics for almost all the disorders to which flesh is heir. They are adopted, trusted and used. They are eulogized by medical societies, and spread broadcast by the aid of medical literature. It seems as if nothing can be successfully urged against them. But in a few years, or at most a few decades of years, they drop out of use if not out of memory. Such is the history of medical progress.

J. S. GALLOWAY, M. D.

TEMPERATURE AND HEALTH IN DWELLING HOUSES.

FROM *The Sanitarian* we take the following practical suggestions in a most important branch of home hygiene, and are indebted also to the kindness of Dr. Bell, the editor, for the use of the illustrations:

What is generally called a cold is always produced by some change of temperature, with or without moisture, to which a part or the whole of the person has been exposed. One is more apt to take cold if a part and not the entire body be exposed to a low temperature. Dampness adds greatly to the power of a low temperature to produce a cold.

The most healthful temperature for the human body to live in is about 70° Fahr. In a slowly moving atmosphere at 70° Fahr. a person can not take cold; but a change of 10° Fahr., especially if it is sudden, is often sufficient to cause one to take cold.

The foregoing are undeniable truths,

based on physiology, chemistry, and physics. Their importance and the practical application of them, especially in the prevention and treatment of diseases of the respiratory organs we will now consider.

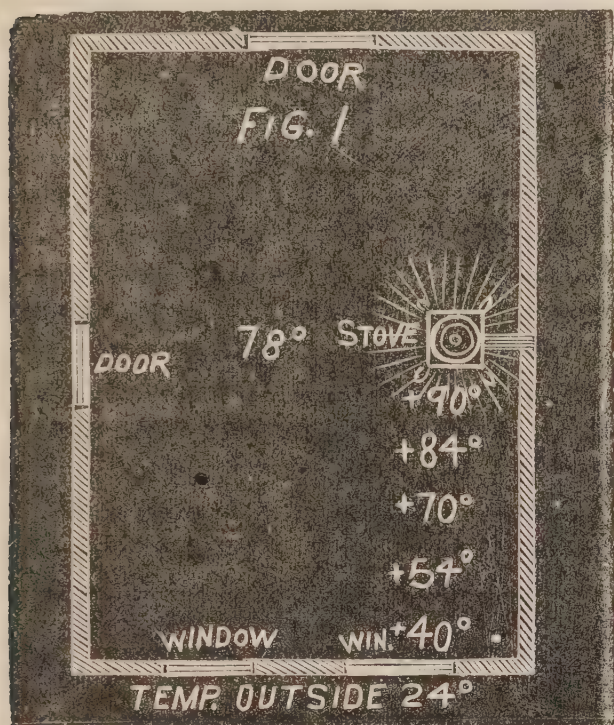
A few years ago I began making some observations and experiments on the circulation and temperature of air in rooms, with results which appear to me to be of practical importance.

The conditions of temperature and circulation of air vary greatly in rooms, especially those that are in use.

Fig. 1 gives results of experiments in a room ten feet high, twelve feet wide, and twenty feet long, with a good stove and steady fire. Three-story brick house, south front, twelve rooms, warm cellar. Outdoor temperature 24° Fahr. By examination of Fig. 1, it will be seen that when the center of a room is 78° Fahr., four feet from the window it may be 70°

Fahr., one foot from window 54° Fahr., and at window 40° Fahr. (no doors or windows having been open for thirty minutes), a difference in the room of 38° Fahr.

In Fig. 2, a vertical section of same room, it will be seen that while the head is in 75° Fahr. the feet may be in 50°



Fahr. What must be the effect on a person who removes his warm boots and wears slippers, or the one that lies down to sleep on such a floor? Many do these very things, however.

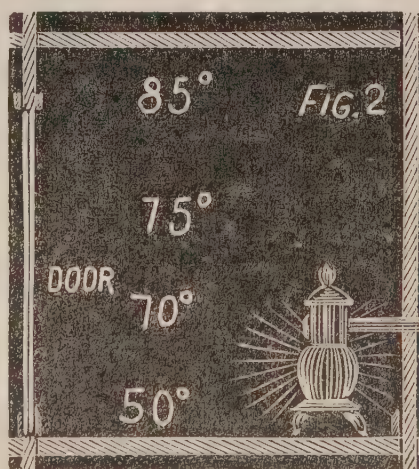
Fig. 3 shows an everyday occurrence among thousands, yes, millions of people. A child three or four years old, from playing near a stove or on a nurse's lap, in a temperature of 70° or 80° Fahr., perhaps in a sweat, goes to a window and stands, without any change of clothing or protection, for half an hour or more, in a temperature anywhere from 30° to 55° Fahr. How such a thing can occur without resulting in croup or pneumonia must be marvellous to any one who studies the subject even casually.

In many instances there is a small crack or opening either under the sash or at the side, and almost always at the junction of the upper and lower sash, where a stream of air is passing into the room nearly as cold as the outside air,

though it be below zero. Cold air at a high speed striking a child directly on bare throat or breast can seldom fail to produce some dreadful disease. On a very cold day, in some of the wooden houses inhabited by poor people with many children and little time to look after them, children may often be found sitting on the floor in a temperature of 38° Fahr., or standing with nose against window-pane at 20° Fahr., when the mother is washing or ironing in 65° Fahr. These people generally have but one fire in the house, and that in a cook-stove, which can not heat the floor at all, while cold drafts come from every other room, and especially from the stairway.

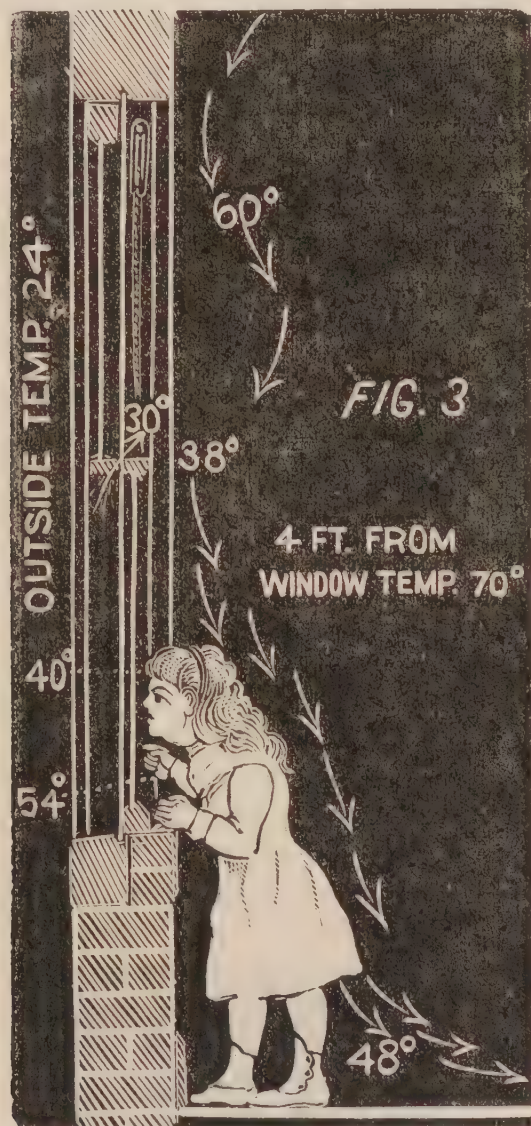
In churches and theatres the galleries will be 85° to 90° when the floor is 70° Fahr.; then the opening of a door or window is very injurious, and going out into the air at 10° or 20° Fahr. also causes a dangerous strain on the system.

In view of the principle already given, it seems to me that this is a striking state of affairs, and perhaps no principles of hygiene are so grossly violated as these. No wonder the death list in Philadelphia alone in a single year reaches the dreadful sum of one thousand from pneumonia and about four hundred from croup (preventable diseases in most



cases). It is also somewhat remarkable that the subject has not before been written up in medical works. The thermometry of hygiene and the sick-room is a fruitful field for cultivation.

By reference to cuts, it may be seen that it is easy to be exposed in five seconds to a change of 40° Fahr., a circumstance that can never occur out of doors. In open air the temperature is nearly the same from head to foot, and changes much more slowly than in the house. A child gets off the bed and sits on the floor, a change of 10° Fahr., it may be



20° Fahr., or it goes to the window, possibly to scratch in the beautiful frost-work on the glass, a change sometimes of 40° Fahr. This explains why people take cold more frequently in the house than they do out of doors. In fact, I do not believe that people will take cold by habitually going out if they exercise and are properly clothed.

By reference to Fig. 4 it will be seen that when the first floor was as low as 48° and 50° Fahr., the second floor was 65° Fahr., and all the second floor room

was of a more even temperature. This is owing, of course to the cold under the first floor, and the heat 90° Fahr., under the second. It shows why the sick should be, if possible, in the second story, over a room that is heated, and why relapses occur when patients are permitted to come downstairs. The contrast is greater in many instances than shown in the figure, which represents a grade of houses better than the medium.

Most of the foregoing experiments may be performed as follows: Take one and a half dozen thermometers (common Japanned tin cases), set them in water very cold, 33° Fahr., and well-stirred; ascertain the difference in the register, if any, and note it by pasting a little slip of paper with the correction on it near the top. Then place the thermometers all in water at 120° Fahr., well-stirred, and correct as before; then in water at 70° Fahr., and correct. These corrections will render them sufficiently accurate for practical purposes. Lay six of them across the floor, or, better, on blocks one half an inch high, in a row, equally distant one from the other, extending from wall to wall; then stretch a string or wire across the room in the same vertical plane as the row of thermometers, and hang another row on it right above the first; stretch another row across in the same plane at ceiling. You will then have three horizontal rows and six vertical rows. Wait thirty minutes, then read off the temperatures, and record them on a piece of paper to represent the vertical section of room. Any number of such sections may be made in a room, and should be made to include windows and doors as a main feature. Temperature of windows can very easily be taken by placing or hanging thermometers on the sash.

It is clear from what has been stated that to keep well, or to treat diseases, especially of the respiratory organs, such as pneumonia, croup, pleurisy, bronchitis, coryza, etc., we should keep an even temperature of about 70° Fahr.

mosphere instead of a vacuum. Once a lady said to me on my second visit: "Doctor, I don't see as that theomiter is any good; I've been a-watchin' it, and I had to use more coal to keep the room

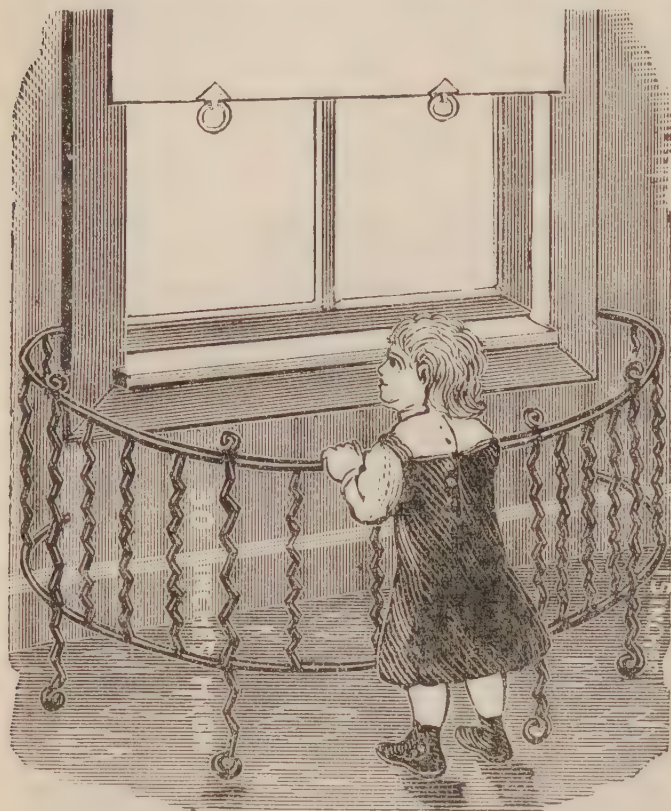


FIG. 5.

warm than afore I got it; I gist might as well a-throwed the money away." Still, I am in the habit of ordering a thermometer with the first prescription, though many would apparently pay five

dollars for medicine more freely than twenty-five cents for a thermometer, that might save ten times that amount.

No one can tell by his own feelings whether a room is warm or cold, for often you will see two persons contending in the same room, one that it is too warm, and the other that it is too cool. It is obvious that we can not regulate for invalids or others by our own feelings. The only unerring guide is the silent, sensitive little column of mercury. The more rooms that are kept heated in a house the less draughts will be found. Especially heat the halls; it will not take much more coal, and will avoid forcing your heaters or stoves, and enable you to keep easy fires; keep the cold air from under the house also. The study of this subject shows not only the varied principles that lie at the foundation of successful practice, but also the importance of the collateral sciences to medical education. And it is believed that even the few suggestions of this paper, if properly applied, would reduce the amount of sickness and death consequent upon the habitual neglect of easy precautions.

D. BENJAMIN, M. D., Camden, N. J.

HYPNOTISM BEFORE THE CONGRESS AT NANCY, FRANCE.*

WHAT I shall give herein is a synopsis of several papers read by men eminent in science at a late meeting of the Association of Scientists of the Congress of Nancy, France, on the subject of hypnotism. It may perhaps be wise, first, to define what is meant by this term. Formerly it was used to denote the sleep which is caused by the action of one person through magnetic passes or will-power on another person. More recently it has come to include mind-reading, thought-transference, clairvoy-

ance, and a host of other phenomena, including mind-cure, faith-cure, etc.

In France for a number of years the subject of hypnotism has received very much attention from the most eminent of her physicians, and the results of their investigations have developed as much interest among medical men as the mind cure, faith-cure, and prayer-cure have among Christians and the laity here. So great is this interest that at the recent Congress of Scientists at Nancy no less than nine papers were read on various phases of this subject. Indeed, there it has passed the stage of the marvelous and inexplicable, to that of psychology and

* Read before the Anthropological Society of New York by M. L. Holbrook, M. D.

experimental physiology. I am largely indebted to the French *Journal d'Hygiène* for the material of this synopsis.

I. Dr. A. Voisin related his observations upon acute mental alienation treated and cured by hypnotism.

II. Dr. Edgar Berillon in studying the relation between the hypnotic and the wakeful state concludes that we have demonstrated the possibility of obtaining in a person hypnotized a disassociation of phenomena which in the normal state appear to be inseparable. We have gained the power of control over the action of a subject whatever his natural habit of mind or strength of will may be.

III. In the third paper Monsieur Liégeois, Professor of Law at Nancy, presented the following summary of the question in its bearings upon civil and criminal jurisprudence.

1. It is possible to develop in certain persons a state of artificial somnambulism analogous to but not the same as natural somnambulism.

2. The subject of artificial somnambulism is entirely under control of the operator, not only physically but mentally and obeys all his commands without objection, however absurd they may be.

3. The subject is made the victim of all manner of hallucinations and suggestions, and these are imposed upon him in the most realistic and absolute manner.

4. The subject may be reduced to a condition in which he is incapable of defending himself against criminal violence, and the most wicked acts committed against him leave no impression upon his memory after he has been recalled to his normal state.

5. The memory of the occurrence effaced by a return to the normal state may be revived by a new hypnotic sleep, and in this state the subject may give to friends or to justice such information as may be necessary for the detection and punishment of the guilty person or persons.

6. The subject may receive sugges-

tions tending to the commission of any given crime or misdemeanor after the lapse of several hours or days, and he will endeavor to commit the specified act at the appointed time with a fatal certainty.

7. In such cases the perpetrator of the guilty act should be considered irresponsible before the law, and he alone who suggested the act should be punished.

8. False testimony in civil or criminal cases and falsehoods in writing, public or private, may be induced by hypnotic suggestions.

9. Justice has not the right to cause any one to be placed in the hypnotic state in order to obtain confessions or accusations which the person would refuse to give in the normal state.

10. If an accused person or the victim of a crime demands to be hypnotized in order to be able to give testimony which he believes would be favorable to his cause, such demand should be acceded to.

11. The same rule applies to all civil acts, contracts and obligations, that may have been entered into under hypnotic influence.

12. It applies also to donations and to wills made when the donor is hypnotized.

13. With certain persons the greater part of the hypnotic suggestions of which we have spoken, and particularly suggestions tending to the performance of specific acts, may be communicated not only while the subject is in the hypnotic state, but also in a state of *apparent* wakefulness.

14. We recommend all persons never to allow themselves to be hypnotized except in the presence of a chosen witness, in whom they have entire confidence. The most serious risks may result from neglect of this precaution.

IV. In the fourth paper, M. Burot, Professor at the Naval School of Rochefort, spoke of the change of personal identity, and referred to a case of multi-

ple identity observed by Dr. Bourru and by himself upon a hystero-epileptic subject. The point of especial interest in this communication, is that the operator may transfer the subject at will to any previous epoch of his life, at which there may have occurred any striking phenomena, physical or psychical. In such cases there is, he adds, a constant and necessary relation between the physical and mental state of the subject.

V. Dr. Bernheim, of the faculty of the University, Nancy, read an elaborate paper upon hysterical amaurosis and suggestive amaurosis (decay of sight from paralysis of optic nerve) which appears in full in No. 3 of the new Review of Hypnotism, Experimental and Therapeutic. He closes with the following resume: Hysterical amaurosis has no physical location. It exists neither in the retina, nor in the optic nerve, nor in the cortical center of vision. It is real, but it exists only in the imagination of the subject.

VI. Liebeault, of Nancy, communicated the result of hypnotic treatment in 77 cases of incontinnence of urine, the patients being adults and children over three years of age, and concluded in these words: "By means of hypnotic suggestion during induced sleep, it is often possible to re-establish the disturbed harmony of the functions in a manner to avoid this affection in the case of children and adults, and the same treatment applies to the aged who are subject to the same infirmity.

VII. In the section of pedagogy, presided over by M. Felix Hement, a most instructive discussion arose regarding hypnotic suggestion from the point of view of pedagogy. Dr. Edouard Berillon, who led this discussion, formulated the following conclusions:

"In the treatment of children merely indolent, indocile, or mediocre, we may limit ourselves to verbal suggestions in the wakeful state. To make this effectual it is necessary to inspire in the child the most perfect confidence, to iso-

late it, to place the hand upon its forehead, to speak gently but with precision and patience.

"1. In the treatment of children impulsive, refractory, incapable of the least attention or application, manifesting an irresistible tendency toward bad instincts, we think there can be no objection to the induction of the hypnotic state.

"2. During the hypnotic sleep the suggestions have more power. They make a more profound and durable impression. It is possible in many cases by repeating them many times to develop the faculty of attention in subjects hitherto intractable, to correct bad tendencies, and to recall to virtue spirits which would otherwise be hopelessly lost.

"3. In conclusion, he said: I do not hesitate to affirm that while it is not desirable to practice hypnotism upon healthy and well-organized minds, it is justifiable from the point of view of pedagogy to deal thus with subjects bad, vicious or diseased. But even here it is to be discreetly resorted to, only or especially in cases where other pedagogic means have failed, and it [is to be practiced only under the direction of a competent and experienced person."

Notwithstanding the reserve of M. Blum, professor of philosophy at the Lycée of St. Omer, who "could not readily accept a method involving the moral liberty of the child," and in spite of the objections of the same nature formulated at the Academy of Moral and Political Science by a distinguished jurist, M. Desjarnins, MM. Liegeois, Leclere and Ladame emphatically endorsed the conclusions of M. Berillon. The President, M. Hement, continued the discussion in the following words: "Without doubt education should respect the personality of the human soul; it should not regard the child as an automaton, but it may and it should do for the lunatic, who is a defective being and for the child who is an incomplete

being, all that is of a nature to correct the former and to develop the latter. If the hypnotizer fails to confine his power within wise limits, if he abuses it, if he injures the being whom he should benefit, the law is there to punish him as it punishes the meanest of malefactors.

"The benevolent establishments of MM. Boujean and de Metz for the benefit of abandoned and vicious children proceed upon the same principle as that of hypnotism. They assume, to a certain degree, the mastery of the individual will and conscience. They do in a moral sense what the gardener does physically when he trains and supports the feeble branch upon a white and sun-warmed wall. The tree receives under these conditions the greatest possible amount of heat and light; it is also shielded against storms, and, in consequence, instead of bearing inferior, colorless, bitter or tasteless fruit, it bears a delicious and nourishing kind, the honor and delight of the table. In like manner the true educator supports and trains the human mind, and his success and that only justifies the means.

"Let it be understood, in conclusion, that we are not discussing a method of education for all, but a treatment, a curative process, applicable to weak or vicious natures. Further, it is to be observed that hypnotism can not be successfully employed by all who may desire to do so; it is and should be limited to a chosen few who are worthy the name of educators, and of physicians of the soul. We do not accept without discrimination a person to treat a child physically ill, why then should we summon without care the one who is to treat those morally unsound?

"I accept willingly the idea of hypnotic treatment in cases where the teacher confesses his inability. Such treatment seems to me the point of departure of a genuine moral orthopædy."

VIII. In the same section of pedagogy, Dr. Netter, of Nancy, read a note upon

"The hypnotic suggestion in relation to the spiritualistic doctrine of Descartes." According to the learned writer the hypnotic suggestion as taught at Nancy, is in full accord with the doctrine of Descartes, who admits a radical difference between man and animal. The following are his conclusions:

1. It is possible to hypnotize animals to cause them to sleep, but it is not possible to suggest ideas to them, not even to a monkey, by means of mimicry, although these animals imitate so well all our movements. It is only possible to modify the habits of animals.

2. In the case of a human being, the hypnotization suspends the action of those faculties which are necessary to the maintenance of consciousness. The subject is thus transformed into an automaton.

3. Professor Bernheim admits the existence of psychical phenomena and of phenomena purely cerebral.

4. Animals do not speak; they are not even in a self-conscious state; they preserve, therefore, indefinitely the new habits which have been imparted to them.

5. Children born vicious may be modified by hypnotization, by calming their impulses and by rendering them attentive to instruction. The spiritualistic philosophy may well accept the proposition emanating from Nancy to intervene with hypnotization in the education of children born vicious.

IX. The following is the substance of a communication from Dr. Jules Luys of the Biological Society under the title, "The effect of certain substances at a distance upon hysterical somnambulists."

1. The hypnotized subject acquires by virtue of the hypnotic state a sensitiveness to certain substances at a distance.

2. These substances, derived partly from the mineral and partly from the vegetable kingdom, determine various reactions upon the organism, such as convulsions, paralysis, hallucinations, etc.

3. The effects vary with the point of

contact, and with the side on which they are made to approach.

4. The result of these experiments upon the nervous system indicates the possibility of a new method of treatment for maladies of the nervous system.

By a series of instantaneous photographs the effect of the same substances presented alternately on the right and left side has been shown. On the one side joy, gaiety, laughter, are expressed, on the other, fear, and in certain cases, the most violent terror.

We thus present a clear and impartial summary of the present state of the question of hypnotism. It seems to me to be full of interest and may lead students of our own land to enter into the study of this object from the point of view of science. We have had enough of this study from the point of view of the speculator, with its absurd exhibitions which amuse but do not benefit. Let us enter heartily upon the higher plane of this great subject.

A LEAF FROM A LETTER.

I WENT out directly after breakfast, though I left many "chores" in the house waiting to be done. There was one thing, however, more important than all—to get myself harmonized. Sometimes a glimpse of the pumpkin patch lying in the September sun will do this. I will tell you how. Said field is enclosed with a wall, every stone of which is embroidered with lichens in the softest most harmonious tints—the greens, and grays, and browns, that our decorative-art associations use so much. Next, it has a border of dainty purple asters, growing in luxuriant clusters, and in vivid contrast are scattered the brilliant orange globes. To see this picture often makes me forget myself for an instant, fills me with enthusiasm, and lo! I am cured of whatever ailed me when I came out of the house. It is not easy to tell what is the matter when we are "well," yet, are not well. I think perhaps the secret of this condition is that the soul is unduly dominated by the body; the balance is lost. The spirit needs a tonic; and a breath of fresh air, a glance at a beautiful sight, distant hills, a breadth of sea, furnish the desired exhilaration. This accounts for the sudden change of feeling one often experiences in leaving the house. One scarcely clears the doorstep before he is a different creature. It seems astonishing, but it is really so. A bird with its wings

tied, and the same bird free to speed away into the sweet sunny air, are different creatures. The wings represent the soul. With our cares for the body the soul becomes bound. Sometimes with a little opportunity for expansion it bursts its bonds, and then we are happy—are cured. No matter where the body is if the soul be free. If the soul be in a condition to soar, the lips will sing songs in a dungeon.

This particular morning I took Thoreau's "Walden" for a companion, and went for a walk among the cliffs of my "seaside resort." I roamed about rather discontentedly for awhile, but the exquisite world of out-of-doors soon awakened my enthusiasm—*en theos* (God in us)—and the house began to recede. Before I went out I was not only in the house, but the house was in me; or, perhaps, to speak more accurately, was a part of me. I was carrying it around as a snail carries its shell. The divine part getting breathing space gained strength rapidly, and the shell dissolved by a true magic, and was felt no more.

I took up Thoreau and opened at this sentence: "If the day and the night are such that you greet them with joy, and life emits a fragrance like flowers and sweet-scented herbs; is more elastic, more starry, more immortal—that is your success." This success is not

incompatible with the earning wherewithal to eat and drink and wear; but no life that is greedy, selfish, vain, unloving, emits a fragrance." And the tenderest, most sensitive life, too much overborne and overladen, may lose the sense of the day's sweetness, and the night's starriness. Again I read: "The true harvest of my daily life is somewhat as intangible and indescribable as the tints of morning or evening. It is a little star-dust caught, a segment of the rainbow which I have clutched. The rest of the day is spent in visible gains; in nourishing that which must soon go to dust, with the purple asters, and the grass of the field, but this something which nourishes the soul; this bit of manna that we have found through the virtue of clear eyes and attentive looking, this repays us for the task of breathing, and redeems the day from sordidness. Alas for the day

when one's spirit gets not its part of the gain. All the rest is but chaff. To go on feeding and housing the material of what good is it?

"He is blessed who is assured that the animal is dying out in him day by day, and the divine being established." So reassured, confronted, refreshed with serenity and smiles I went back to my house, and its working spirit no longer took part in the burdens, and they were for that reason not burdens. What fiancé would mind the daily tasks, expecting her lover with the evening? The spirit goes in advance and is love-making all day. So I, whether baking, or ironing or mending, felt myself surrounded by the universal love—in other words I was attuned to the universal harmony, and was no longer conscious of myself as a separate, jarring discordant individuality.

MRS. M. F. BUTTS.

"COMFORTABLE" HOUSES AND COLDS.

THE relation of fresh air and out-of-door life to health, and freedom from bronchial disorders, is illustrated by a correspondent of the *Germantown Telegraph*, who relates some rather trying war experiences, as follows:

I served through the war in the Fifth Ohio Cavalry, beginning at Shiloh, and ending my service with the march to the sea. We were an active regiment, always at the front, and therefore always remarkably unencumbered with tents and comforts. We were exposed to all weathers and all seasons. Many a time we were rained on for a week or more. When the sun came out the next week or the week after, it dried us. Many a time long after dark, after a march in rain and mud all day, we have been filed into miry woods, where we slept in the rain, with the water washing between us and our blankets. I have seen men wake in the morning with their hair frozen in the mud. But none of us caught

cold. We swam the Tennessee River after midnight, when the mercury was at zero, and among floating ice, and came out with our clothes, to our armpits, frozen like sheet iron, and then marched till morning. In the cold winter of 1863-64, we were in the mountainous country of East Tennessee, where it is as cold as Ohio. We were there from November until March, without any tents or shelter of any kind, moving every day, and sleeping in a different place every night, with a temperature frequently below zero.

I have, with my comrades, ridden upon the skirmish line when I could not lift a cartridge out of my box, nor even pick up a carbine cap. I have been on night pickets, mounted, when the pickets had to be relieved every fifteen minutes, because if left longer the men could not load and fire. But we never caught the slightest cold, nor did I ever see in times of cold and exposure a sol-

dier with a cold. But I did catch one cold in the army, and I never had such a one before or since. It came from excessive comfort, or what seemed comfort to us. We were at Camp Davies, Miss., the southern outpost of the great fortress of Corinth. Having been there some months, we began to build neat log cabins, with openings for doors and windows; no glass or doors, of course.

One of our mess being a young bricklayer, we thought to surpass our neighbors in style and comfort, and we sent for brick, and he built us a large chimney and fireplace, and we built a good fire. That settled us. Four of us had to go to the hospital with tremendous colds on our chests and in our heads. We never had such heavy colds in our lives. This was about the middle of our three years of service, and before and after that I never saw an exposed soldier with a cold. (Of course a few days after our cabin was finished we got marching orders.) I believe all soldiers will bear me out that in active campaigns, where there was exposure to the weather, no one had a cold. And come to think of it, in my experience in Colorado and Utah, in recent years, I never saw an Indian with a cold, though they stand more exposure than our cattle do. It is our hot rooms that give us our colds. If a person would camp out from fall till spring, exposed to the weather of a severe winter, he would never take a cold, pleurisy, or pneumonia, and would be absolutely free from them. But when you are in Rome you must do as the Romans do and take warm rooms and colds.

ANDREW VAN BIBBER.

VEGETARIANISM IN THE FUTURE.—A writer in the *Dietetic Reformer* writes in a vein of confidence regarding the growth of vegetarianism, and cites many strong evidences for his opinion.

To me, I confess, it was a joyful surprise to find science exactly confirming these venerable traditions and aspirations.

Anatomy and physiology teach that man is naturally frugivorous. Chemistry and experience teach that fruit, nuts, grain, and pulse, with roots, leaves, flowers and stems of vegetables, form a perfect human diet. Economy (Carey in 1837) teaches that, as mankind multiplies, animal substances are superseded by vegetable or mineral. Hence sooner or later—it is a mere question of time—the whole cultivable earth must of necessity be tilled as a garden. That the future belongs to Vegetarianism is the authoritative prophecy (1878) of Dr. A. Beketoff, himself not a Vegetarian. Taking a world-wide survey, finding in the Old World flesh-eating on a large scale almost confined to the townsfolk of Great Britain and Ireland, he concludes that sooner or later we too must bow to this necessary law.

Man is an animal of large discourse,
Looking before and after:

and whichever way he looks his ultimate home—his whence and whither—is a garden. We claim as our allies the religions of the East with their testimony to the sacredness of all life; the Brahmo-Somaj; Roman churches; the chief Fathers of the church; Trappists with their longevity and freedom from disease; the Salvation Army with its prohibition of alcohol and tobacco, and its recent week of self-denial; the Shakers of the United States and our venerable friend Elder Evans; the Bible Christians of Salford and Pennsylvania with their frugal discipline and honorable history. In the Church of England Lent is once more applied to its high purpose, not by one party only. Let us hope that Dr. Cheyne's rebuke of that "wrong-headed part of our reformation, where it has been despised and ridiculed into a total neglect" (see my *Modicus Cibi*, 1880, p. 76) may cease to be deserved.

In a word, that most powerful motive of the noblest minds, speaks loudly on our behalf. On our platform Cardinal Manning and General Booth, Mr. Spurgeon and our Buddhist fellow-subjects, would be alike welcome; nor would they compromise any principle by joining us. In practice, I believe, they are ours already. Our May meetings are often made possible by the generosity with which various religious communities open their halls to us, and I think that their confidence is seldom or never betrayed.

NOTES IN SCIENCE AND INDUSTRY.

The Dreams of the Blind.—A paper read before the biological section of the American Science Association, at its last meeting, was on "The Dreams of the Blind," by Dr. Joseph Jastrow. The object of the paper was to determine the extreme age at which a child may become blind and yet lose all memory of the visible world, so that it no longer sees in its dreams. The author said: Almost all dreams of normal persons are sight dreams, and a dream is often spoken of as a vision. The blind are deprived of this most important sense: but if they have not been born blind, they may remember enough of what they have seen to enable them to imagine how things look, and when the imagination has free play in sleep, to picture themselves as if in full possession of all their senses. Physiologists would explain this by saying, that during the years in which they saw, a certain part of the brain has become educated to receive and interpret all these messages which the eye sends, and that when this part of the brain acts spontaneously in sleep, the person dreams of seeing. Such a portion of the brain would be called the sight-center.

If now we find out the latest age at which blindness may set in and yet the person keep on dreaming of seeing, we shall find out the time it takes for this sight to develop. For this purpose about 200 blind persons of both sexes were questioned at the institutions for the blind in Philadelphia and Baltimore, and it was found that those who became blind before their fifth year never dreamed of seeing; of those whose sight was lost between the fifth and seventh year, some did and some did not see in their dreams; while all whose eyesight was destroyed after the seventh year had quite as vivid dream-visions as seeing people. The fifth to the seventh year is thus shown to be the critical period. This period corresponds with the age which the authorities assign as the limit at which a child becoming deaf will also become dumb, and also with the age of one's earliest continuous memory of one's self. It is interesting to note that blind persons dream quite as frequently as normal people, and that with those who do not see in their

dreams hearing plays the principal part. When dreaming of home, for instance, they will hear their father's voice or their sister singing, and perhaps will feel the familiar objects in the room, and thus know they are at home.

The Proposed Rocky Mountain Railway Tunnel.—A project is on foot for tunneling the "Great Divide." The Divide is the Rocky Mountains, and the point proposed to be tunneled is under Gray's Peak, which rises no less than 14,441 feet above the level of the sea. At 4,441 feet below the Peak, by tunneling from east to west for 25,000 feet direct, communication would be opened between the valleys on the Atlantic slope and those on the Pacific side. This would shorten the distance between Denver, in Colorado, and Salt Lake City, in Utah, and consequently the distance between the Missouri river, say at St. Louis, and San Francisco, nearly 300 miles; and there would be little more required in the way of ascending or descending or tunneling mountains. Part of the work has already been accomplished. The country from the Missouri to the foot of the Rockies rises gradually in rolling prairie, till an elevation is reached to 5,200 feet above the sea level. The Rockies rise at various places to a height exceeding 11,000 feet. Of the twenty most famous passes, only seven are below 10,000 feet, while five are upward of 12,000 feet, and one, the Argentine, is 13,000 feet. Of the 73 important towns in Colorado, only twelve are below 5,000 feet, ten are over 10,000 feet, and one is 14,000 feet. Passes at such a height are of course a barrier to ordinary traffic, and the railways from the Atlantic to the Pacific have in consequence made detours of hundreds of miles, leaving rich plains lying on the western slopes of the great snowy range practically cut off from Denver and the markets of the East. The point from which it is proposed to tunnel is sixty miles due west from Denver, and although one of the highest peaks, it is by far the narrowest in the great backbone of the American continent.

The Transcontinental Balloon Voyage.—The largest balloon in the world, according to the *San Francisco Chronicle*, has recently been built in that city by Mr. A. P. Van Tassel. It has a capacity of 150,000 cubic feet of gas, and has been constructed for the special purpose of enabling the well-known aeronaut to undertake a journey across the continent, from ocean to ocean. The height from the floor of the wicker car to the top of the gas reservoir is 119 feet, and of the dilated reservoir alone 68 feet. The envelope is made of finely woven cloth, manufactured expressly for the purpose, and is varnished, as usual, in order to make it gas tight. The car has accommodation for fifteen persons. It is about twenty-one feet in circumference, and the sides are thirty-four inches high. The supporting ropes are kept in place by the usual "concentrics." Hydrogen gas will be used for inflating the balloon. The cost of the structure is \$6,000. Mr. Van Tassel has had considerable experience in aerial traveling, having crossed the Wichita Mountains, 15,000 feet above the sea level. His present attempt is more ambitious than any he has yet made. A careful study of the aerial currents leads him to believe that by seeking the proper stratum of air he can be carried eastward at high speed, possibly 100 miles an hour. The greatest difficulty will probably be due to the Rocky Mountains, which modify the movements of the air currents over a large area of the continent. It is expected that the voyage will be begun some time about the 1st of July. Should it survive the trip, the giant balloon will be taken back to San Francisco, where it will be placed on exhibition.

The New Optical Glass.—We learn from the *American Monthly Microscopical Journal*, that at the meeting of the Royal Microscopical Society, on Nov. 10, 1886, Mr. T. Myall, jr., called attention to an apochromatic objective work cut by Powell & Leland. They had procured some of the new kind of optical glass from Java and made a 1.2 inch homogeneous immersion objective on their own formula. The objective which they manufactured compared favorably with those of Zeiss. The instrument was upon exhibition, and stood well tests ap-

plied to it with both axial and oblique illumination. Mr. Powell's eye-piece had a magnifying power of 40 diameters *per se*, and even under this severe test the new objective did not break down. This eye-piece was higher than the highest in the Zeiss series, which is only 27. The formula of the Powell lens was less complex than the Zeiss, fewer lenses being employed. Dr. Dallinger, the president of the society, said that he had had the opportunity of examining the new lens of Mr. Powell, and was quite astonished at its definition. He had had the opportunity of examining very carefully a set of the new lenses by Zeiss, and was perfectly convinced of the immense gain they would be to the microscopist so long as they were made by the best makers.

A Delicate Instrument.—A French thermometer has been devised of such sensitiveness that it will even denote, by a deflection of the index needle of nearly two inches, the entrance of a person into the room where it is placed, and by putting the hand near the bulb the needle is deflected the whole extent of the graduated arc. The apparatus consists of a bent tube, carrying at one end a bulb which is coated externally with lamp-black. The tube is filled to a certain extent with mercury, and is supported by arms pivoting on a steel knife blade. Just above the pivot is fixed an index needle which moves across a graduated arc; and beneath the pivot hangs a rod, to which is attached by friction a small weight that serves to balance the needle so as to cause it to point to zero on the arc. When the temperature rises, be it ever so slightly, the heat being absorbed by the lamp-black dilates the air in the bulb and drives the mercury forward. The center of gravity of the apparatus being thus displaced, the needle will immediately turn toward the right—and when, on the contrary, the temperature decreases, the needle will point toward the left.

Words Often Misused.—Acoustics is always singular.

Cut bias, and not cut on the bias.

Come to see me, and not come and see me.

Bursted is not elegant and is rarely correct.

Almost, with a negative, is ridiculous. "Almost nothing" is absurd.

The burden of a song means the refrain or chorus, not its sense or meaning.

Bountiful applies to persons, not to things, and has no reference to quantity.

Affable only applies when speaking of the manner of superiors to inferiors.

"Methinks is formed by the impersonal verb think, meaning seem, and the dative me; and is literally rendered, It seems to me."

Admire should not be followed with the infinitive. Never say, as many do, "I should admire to go with you," etc. This error is singularly fashionable just now.

Allude is now frequently misused when a thing is named, spoken of or described. It should only be used when anything is hinted at in a playful or passing manner.

Scientific Hoaxes.—The great lesson which Cuvier taught the world was, that many races of animals were entirely extinct, and that nature's chain of existence had not one, but many missing links. From his recognition of that fact the science of palæontology may be said to date. But the carnivorous nature of the mastodon was too fascinating an absurdity to be so easily killed, and it continued to appear at intervals. As late as 1835 we find a New England medical professor writing as if it were an unquestionable fact. The giant theory lingered still longer, and even yet can not be considered entirely extinct among the unlearned. The dictum that the superstitions of one age are but the science of preceding ages receives ample confirmation in the history of this subject. Not longer ago than 1846 a mastodon skeleton was exhibited in New Orleans as that of a giant. The cranium was made of raw hide, fantastic wooden teeth were fitted in the jaws, all missing parts were restored after the human model, and the whole raised upon the hind legs. It certainly conveyed the notion of "a hideous, diabolical giant," and was no doubt responsible for many nightmares. As a sad commentary on the state of the medical profession in the Southwest at that time, it may be added that the exhibitor was perfectly honest in his belief, and to support his faith, he had a trunk full of physicians' certificates that these were human bones.

In 1840 "Dr." Koch, a German charlatan, created a great sensation by announcing the discovery of the leviathan of Job, which he called the Missouriium, from the State where it was found. It turned out, however, to be nothing but a mastodon preposterously mounted. Koch had added an extra dozen or more joints to the backbone and ribs to the chest, turned the tusks outward into a semicircle, and converted the animal into an aquatic monster which anchored itself to trees by means of its sickle-shaped tusks and then peacefully slumbered on the bosom of the waves. Like the Siberians, he found interesting confirmations of his views in the book of Job, that refuge of perplexed monster-makers. Koch took his leviathan to London, where it was purchased by the British Museum, and reconverted into a mastodon by Professor Owen, who at once recognized its true nature.—*Scribner's Magazine*.

A Simple Test for Arsenic in Wall Paper.—A simple and easily applied test for arsenic in wall paper has been devised by Mr. F. F. Grenstedt. No apparatus is needed beyond an ordinary gas-jet which is turned down to quite a pinpoint, until the flame is wholly blue; when this has been done, a strip of the paper suspected to contain arsenic is cut one-sixteenth of an inch wide, and an inch or two long. Directly the edge of this paper is brought into contact with the outer edge of the gas-flame, a grey coloration, due to arsenic will be seen in the same. The paper is burned a little, and the fumes that are given off will be found to have a strong garlic like odor, due to the vapor of arsenious acid. Take the paper away from the flame, and look at the charred end—the carbon will be colored a bronze-red, this is copper reduced by the carbon; being now away from the flame in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end a second time, not too far into the flame, the flame will now be colored green by the copper. By this simple means it is possible to form an opinion without an apparatus and without leaving the room as to whether any wall paper contains arsenic, for copper arseniate is commonly used in coloring wall papers.—*Brit. Med. Journal*.



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THE STUDY OF PRINCIPLES FUNDAMENTAL.

THE study of mental science is the most profound of the studies that may be taken up, yet its treatment by people of average education would lead one who sought instruction regarding the exercise of faculties, to think it is easy to understand their nature, and no particular preparation is necessary to grasp their modes of association. When a boy takes up the study of arithmetic he is required to begin with the rudiments of numbers: to learn their simple combinations in addition, subtraction, multiplication and division. Should his teacher open the textbook at the rule of three, or percentage, and expect him to commence there and go on understandingly, that teacher would be set down as unfit for his place, and one such complaint well-founded would put him in danger of losing it. But in the consideration of questions as to how the mind operates in the production of feeling, perception, reasoning, desire, fear, etc., processes that may be complex in their nature, one is apparently expected to show himself a competent judge, off-hand, although he may

not have learned the function of a single primary faculty. Some persons are so organized that they grasp truth intuitively, spontaneously, and that, too, without having much ability to explain how or why. Such may find their intuitions well enough for their own commonplace uses, but when they attempt to apply them to the experiences of other people there is a want of systematic, practical definiteness in their procedure that makes failure inevitable. Two men on looking at a picture in an art-gallery will form different opinions concerning its meaning. Should they state those opinions how would the "intuitive" thinker explain the different processes by which they were reached? Surely, to do it would require a knowledge of the principles of simple perception, of the special functions of the intellectual faculties and also a knowledge of the laws governing their association with each other and with the faculties of the sentiments. The cultivated student of mental science could analyze those opinions, point out the leading motives in each, and show the effect of certain dominant faculties in their formulation.

We must begin with principles and know their meaning thoroughly before we can resolve a scientific problem of any kind, and so long as a man fails to see the scientific character of mental phenomena, so long will the operations of mind be obscure to him or merely a field for guessing. In the higher departments of thinking, especially that of cultured and refined minds, there will always be room enough for the most skilful of phrenologists or psychologists to exert their trained faculties to the utmost; but in the ordinary range of life the

play of function is comparatively simple; the manifestations proceed more directly from primary sources; there is less cross-action, less of the inter-relation of faculty that colors and modifies expression, and consequently the student of mind can dissect a case with confidence, believing that his final conclusions will be accurate.

THE FUTURE OF MEDICINE.

No other department of human science in the past twenty-five years has made a longer step in advance, than surgery through the use of antiseptics. The application of chloroform, or ether, to produce unconsciousness of pain while a difficult operation was being performed, was a great discovery, but it had little effect in reducing the suffering and fatality following the surgeon's knife. An amputation or the removal of a subcutaneous tumor was still attended with dangers that no bandaging would avert; and he was a brave man who would attempt to remove morbid growths that required deep cutting and delicate manipulation. But the advent of Listerism with its sprays and washes of fluid destructive of the minute spores or germs, that set up putrefaction in wounds and sores exposed to the air, changed the aspect of modern surgery. There are no better surgeons to-day than were Sir Astley Cooper, Liston, Dupuytren, Mott, McClelland, so far as skill in the use of instruments is concerned; but the operator of to-day, with his solutions of carbolic acid or mercuric-bichloride at hand, can proceed calmly and with such deliberation as the case requires, introducing scalpel and finger where the old surgeon considered it death to venture.

The revelation of the existence of poisonous organisms in the air that, although invisible, had interfered with the successful treatment of surgical diseases, has led to extensive researches for the purpose of ascertaining the nature and development of such organisms, and a new department of biological science has sprung into existence, to which observers like Pasteur and Koch have imparted dignity by their valuable discoveries. There has been a disposition on the part of some enthusiasts to magnify the morbid effects of germs, and to assert even that animal life is a constant struggle with insidious, malignant forms of bacteria or bacilli, which are always present in the air in greater or less numbers and find their way into the body through the avenues of respiration and the alimentary canal. The idea of health is expressed by some of the bacteriologists in terms like this: A sound physical condition is but a state of physiological dominance over the invading parasite.

While we can not believe that to be well, is merely to have escaped the attacks of a great army of floating infinitesimals, all eager to make "mince-meat" of us, yet there is so much truth in the alleged effects of these minute things in producing disease, that the sooner we make ourselves acquainted with their nature the better. All infectious diseases, whatever their name, the zymotes, or putrefactive disorders, are generally accepted as the work of germs. Yellow-fever, measles, diphtheria, small-pox, fevers of the typhoidal class, cholera, etc., recede before the efforts of the sanitarian to cleanse and purify the habitations of men. Consumption, the dread accompaniment of civilization, and baffling the

best skill of physicians of late generations, has been shown to be of a parasitic nature and dependent upon conditions favorable to the development of a special germ. The peculiar *virus* of diphtheria may lurk in the water of well and cistern, as may the germs of cholera and typhus. The spore of yellow-fever or small-pox may be carried in the clothing or the hair. It is claimed that the minute cause of that pest of river and lake settlements, intermittent fever, has been discovered.

What is the rational inference from these developments of science? Is it not that diseases generally are due to the presence in the blood and tissues of pernicious elements? And are we not safe in claiming that the antiseptic methods of surgery provide us with a clue to their treatment? In fine we should aim to neutralize and destroy the little animal or vegetable organisms that have found an entrance into our bodies, using the best means for that purpose; and, for the restoration of strength and tone to the blood that the ravages made in the tissues by these often tremendously energetic organisms have impaired, we should have recourse to the best hygienic aids. Do we need more than antiseptics and nutrition?

It seems to us that the tendency of modern medicine as exemplified by our best physicians is strong in the direction of more sanitation and less drugs. And what is that but the practical acceptance of the views long ago declared by hygienists with regard to the prevention of disease? Trall, Shew, Johnson, and others in Europe and America, regarded sickness or disease as an effort on the part of the system to throw off a

morbific condition—a theory not far removed from the germ theory of disease. And their plan of treatment had for its object the assistance of nature in its struggle against disease—by cleansing applications and appropriate feeding, exercises, etc.

The practice of medicine, or rather of the physician, has advantages now that should bear wonderful fruit in the suppression of common diseases, and the promotion of community health. With the variety of antiseptic materials at command and the excellent apparatus and dietetic rules of the hygienist contagion of every form, whether in the air or in water, whether bacillus, bacterium or coccus, should be destroyed or made incapable of injury.

TOBACCO SMOKING IN PUBLIC.

IN reply to the question whether we think it becoming to smoke in the public streets we answer here that we can not understand how any man, who lays claim to refinement and courtesy, can reconcile such behavior with such a claim. To many non-smokers the smoke and odor of burning tobacco are disagreeable; to some, offensive to the degree of intolerance. Every intelligent man knows this, and with the knowledge should perceive the impropriety of forcing a disagreeable and offensive thing upon others, as must be the case when one smokes in public. One would think from the careless assumption of the average cigar and cigarette smoker, that his darling habit gave him privileges that do not belong to non-smokers—whether men or women; that he can puff the pungent vapor of his tobacco roll into the faces of people, as he likes, and in waiting-rooms and

public parlors fill the 'air with suffocating fumes. The idea of breathing vapor that has been drawn into a man's mouth and then discharged in great part through his nostrils is not pleasant to contemplate, and yet that is what a smoker compels us to do when he sucks his cigar in our neighborhood.

The liquor saloons generally have screens at their windows and doors so that their patrons may not be seen from the street when taking their regular or irregular drams. Why is this? Is it, from an ethical point of view a more shameful act to drink a glass of beer or whiskey than to smoke a cigar? But whether or not there is any moral distinction between the two, it would be well for society if the smoker would follow the example of the drinker, and burn his tobacco behind ground glass or wooden blinds. Some one has said that "cigarettes are useful because they kill off worthless boys." The process of killing, however, is slow, and its public exhibition is highly objectionable. We heartily wish that the police were authorized to arrest every boy who is seen smoking in the street, and thus abate one feature of the smoking nuisance at any rate. They do this in Germany where the Kaiser has a keen regard to the health of the future recruit for that army by which he wishes to preserve the peace of Europe.

No, we think that a gentleman, however much he likes to smoke, would never parade his appetital weakness in public places, or give occasion for disapproval in any company. A reverend gentleman of New York, one of rare delicacy and culture, whom we knew well, once told us that he was fond of a pipe. We

should, perhaps, never have known it, for his clothing and breath never betrayed the least tobacco odor. In answer to our question how he managed to avoid every disagreeable consequence of his habit he said, with a smile, "I have a place upstairs where I smoke at certain times, and I make a change of my dress before going out. I never smoke in any other part of the house."

HOW YOU LIVE.

"IF you want to grow lean, cadaverous, and unlovely, excite yourself continually about matters you know nothing about. Accuse other people of wrong-doing incessantly and you will find but little time to see any wrong in yourself. We wish here and now to inform all men of irritable dispositions that they will live longer if they only keep cool. If such men want to die, we have nothing to say; snarling will kill about as quick as anything we know."

In this emphatic style a contemporary admonishes his readers. His points are well taken, as the experience of every one in middle life will confirm. Living subserviently to the selfish feelings must lower the whole organization; the irritated, disordered mind depresses and degrades the physical functions. Heart, stomach, liver, kidneys, can not do their normal work under such mental conditions. They need the stimulus of buoyancy, cheerfulness and enthusiasm. Hence, it is that good-natured, hearty, cordial people are as a rule, stout and well. It is sheer folly to encourage a sullen, carping, irritable, terrier-like habit. One may be unfortunate, subject to daily vexations, but it makes the situation worse to worry and brood over it, whereas by

exercising the faculties of faith, hope, determination, and even that of wit, he will the easier adapt himself to the situation, and the easier find ways of relief. People are much more ready to help a patient, cheerful man when in trouble. than your woe-begone, sodden-faced martyr.

The moral, religious and aesthetic elements are given us for the very purpose of making our life pleasant, and he who does not bring them into use at all times in some way, robs himself of the best means of enjoyment; rejects the most powerful helps toward his advancement in true manhood.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

QUACK PHRENOLOGISTS.—Prof. H.—Our reference to that class of men who go about the country pretending to be phrenological examiners and practicing upon the credulity of people might have been a little too sweeping, but we felt warranted in our earnestness by the trouble they cause all earnest workers. They do more harm to Phrenology than the quack-doctor does to the profession of medicine, because every community in the land has its settled physician who is a standing rebuke to the quacks, and is present to uphold the dignity and value of true medical practice. The quack-phrenologist can scatter a great amount of seed in many places that will sprout and yield a crop of error, prejudice and contempt before the true teacher has an opportunity to reveal the character of the sowing, and attempt to uproot the vicious growth. You know, as every lecturer in the field knows, the obstacles such men put in the way of the honest, well informed and useful practitioner of Phrenology, and you misunderstood our meaning if you supposed that our allusion to "cheap examiners" was a fling at any man who was intelligently and honorably working in a sphere where his charges were necessarily adapted to the purses of the people who were his subjects.

ESTATES IN ENGLAND.—Mrs. H.—You have probably learned before this time of the breaking up by police authority of the great swindle called the "British American Claim Agency." Very emphatic confirmation was thus given to what was said a

while ago in this department regarding fortunes held by the British Government in waiting for heirs. Judging by the number of letters received from readers of the PHRENOLOGICAL we should be led to think that there were hundreds of such fortunes, and it would be an easy thing to prove the heirship. The "Company" that had been practicing upon the confidence of the public played its swindling game with skill, but a little reflection should have shown to most of the persons who were baited with its advertisements and circulars that a large fortune to be lying in the vaults of a Government treasury for default of heirs is a very improbable thing to-day.

HOT HANDS.—S. N. H.—The peculiar phenomenon you describe is due, we think, to a nervous condition that has occasioned a strange sensitiveness of the skin. It may be referred, in other words, to an electrical excitement of the skin. It is certainly a very interesting case. See a good physician about the *tania solum* or consult the editor personally. Your success with "Heads and Faces" is encouraging but we have similar reports from nearly all our agents.

EXERCISE OF THE PERCEPTIVES.—J. D.—By mingling with the world of out-doors, and noting what passes you will exercise the faculties of observation. After a day's activity take pencil and paper and write out as fully as you can the incidents of the day, what you have seen and heard, the names, appearance and actual talk of those with whom you have come in contact. This method will stimulate the perceptive organs, and in time impart a more definite mode of action to them.

CLIMATE AND COLOR.—W. H. P.—Exposure to a tropical sun darkens the skin. A white man who emigrates to the Amazon country or the sources of the Congo, would in time have well-browned face and hands. Should he have children born there of a white wife they would take on a brown or swarthy complexion—but the descendants of unmixed whites in a tropical climate would not become black. The Arabs of the African deserts are not black, and there are races in the interior of Africa that are not black like the pure negro, although they have lived there for ages.

FOUL BREATH.—J. M. Can.—Your trouble is probably a form of nasal catarrh, aggravated by stomach disorder. Make your eating as clean and simple as possible, avoiding everything that disturbs digestion. Use tepid water for the nose, being careful about acid or salty solutions, which are irritating to the mucous membrane. Out-of-door life, which gives healthful play to the breathing organs, is helpful to throw off the effete matter that causes the annoyance.

SARCOGNOMY.—I. W. B.—There is much truth in Dr. Buchanan's theory, but we are of opinion that it has not reached that stage of practical definition that adapts it to the use of the world. The views of Dr. B. are so broad and comprehensive that much study and observation are necessary to obtain a clear apprehension of the principles on which his system is based.

NEW ZEALANDER.—W. B.—We can not give you the address of Mr. Frazer. We have been informed that he is traveling and lecturing on his special topics in the country.

PERSONAL.

MIDDLESEX Co., N. J., claims four big men, in the Acker brothers; big in years, height and weight. William is 83 years old, six feet three inches in height, and weighs 250 pounds; Henry is 81, six feet four, and weighs 270; Samuel is 79, six feet five, and weighs 225; Theodore is 73, six feet six, and weighs 230 pounds. All are in excellent health.

MISS CHARLOTTE DEMING, who died in New York lately at the age of ninety-five, was a good artist and retained her faculties and eyesight till the last. Her pictures of flowers and her miniatures on porcelain were excellent; until she had passed the age of eighty-five there was no falling off of her artistic power; then a slight stroke of paralysis rendered execution somewhat difficult.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Kindness—a language which the dumb can speak, and the deaf can understand.—*Bovee.*

So live, so act, that every hour
May die as dies the natural flower,
That every word and every deed
May bear within itself the seed
Of future good in future need.

To the laboring man, rest is sweet, and labor is oft-times rest; to the pleasure-seeker, even rest is weariness, and his accustomed pleasures are only a mockery of the emptiness of his life.

Every human soul has the germ of some flowers within, and they would open if they could only find sunshine and free air to expand in. Not having enough of sunshine is what ails the world.—*Mrs. Child.*

We learn words by rote, but not their meaning; *that* must be paid for with our life-blood, and printed in the subtle fibers of our nerves.—*George Eliot.*

Look within. Within is the foundation of good, and it will ever bubble up if thou wilt ever dig.—*M. Aurelius Antoninus.*

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"Uncle John," said Annabelle, "you must congratulate me, I am graduated." "H'm!" grunted bluff Uncle John, "so is our old thermometer out in the barn; but what is it good for?"

"Why are they called pyramids, pa?" asked Georgie, who was looking at a picture of those wonders of Egypt. "They are called pyramids, my son, because, you see, they appear amid the general desolation of the desert."

Stranger: "I left my umbrella here last night. Where is it?" Shopkeeper: "I don't know." "Why, you said I could leave it here." "Yes, but I didn't say you'd find it when you came back."

While I was standing in a drug-store yesterday a negro boy came in and asked for some quinine. The pharmacist, in order to get at the size of the dose, asked: "Is it for an adult?" "No," said the boy, "it's for a Dutchman around the corner."

"Go back thar an' shet that air door," bawled a Kansas schoolmaster to a tardy pupil. "Ef I kain't l'arn ye grammar an'

sich I'll leastwise l'arn you manners enough not to leave the doors wide open behind ye, as if you'd been borned an' raised in a saw-mill."

"All flesh is grass," the prophet said,
If this be true, I ween,
The grass of which some men were made
Was very, very green.



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

MADRIGALS AND CATCHES. By Frank Dempster Sherman. 18 mo., fancy paper., \$1.00
New York: White, Stokes & Allen.

Gayly flows the poet's muse in these verses. They have the flavor of the fresh spring buds, and as we read we feel on our cheek the breeze of May. How various the conceits, a glance at the titles will disclose. For instance: Morning Mist, Summer, The March Wind, An April Carol, A Glow-Worm, With a Rose, Apple Blossoms, A Bunch of Quatrains, A Persian Dancing Girl, The Book-Hunter, Love's Season, In Parenthesis, A Bundle of Letters, A Rhyme for Priscilla, To Cupid, Engaged, An Untutored Mind, Breezes of Morning, A Butterfly in Wall Street, When Twilight Comes, A Swell.

If, for the pudding's proof, we should cite one or two, perhaps a verse from "A Madrigal" would show something of the author's quality:

"Sweetheart, the year is sweet
With fragrance of the rose
That bends before your feet
As to the gale that blows.
And love like a bird quavers one low word,
Sweetheart, to the garden place;
And across the glow comes an echo low—
'Sweetheart'—your face!

Sweetheart, the year grows old ;
 Upon the meadows brown
 And forests waving gold,
 The stars look, trembling, down.
 And love like a bird whispers one pure
 word,

Sweetheart, to the cooling air ;
 And the breezes sure, waft an echo pure,
 'Sweetheart'—your hair !"

And then this, with its lively, piquant
 measure, from "A Bundle of Letters:"

"Loosen the silken band
 Round the square bundle, and
 See what a dainty hand
 Scribbled to fill it
 Full of facetious chat ;
 Fancy how long she sat
 Moulding the bullets that
 Came with each billet.

* * * *

Criss-cross the writing goes,
 Rapturous rhyme and prose,
 Words which I don't suppose
 Look very large in
 Books on the 'ologies' ;
 Then there's a tiny frieze
 Full of sweets in a squeeze,
 Worked on the margin."

Good work this, and a pleasing relief
 from the deeper, pathetic measures of your
 poet-genius ; it lightens and cheers.

JOHN ADAMS AND THOMAS JEFFERSON. By
 William O. Stoddard. Author of "The
 Life of George Washington," etc. 12 mo.,
 pp. 358. New York: White Stokes &
 Allen.

Mr. Stoddard adds to the list of his popular histories two important names by the publication of this volume. Two great political opponents are embraced in one cover, the leading representatives of two great parties that contested earnestly, and sometimes fiercely, for supremacy in the affairs of government, yet both staunchly loyal to the principles of natural liberty. Without any effort at fine writing the stories of their birth, early life, education, advancement from stage to stage until their country had loaded them with its highest honors are clearly, simply told; but their relation to the great events that led to the building of our nation, and the impartial yet vivid narrative of those events, render both biographies full of inter-

est from beginning to end. In the introductory chapters of John Adams the author has given us a picture of the patriotic spirit of New England in the few years prior to the opening of the Revolutionary War, and when his attention is given to Jefferson Mr. Stoddard briefly describes the character of the Southern people, and the effect of such hot shot as Patrick Henry's declarations in the Virginia House of Burgesses on the hot blood of those who scorned to yield a slavish obedience to the oppressive measures of the obstinate British King.

Our young men can read such a book as this with attention ; it is capitally adapted for circulation among them.

THE TURNING OF THE WHEEL. By Mary Dwinell Chellis. Author of "Miss Belinda's Friends," "From Father to Son," etc. 12 mo. pp. 342. Cloth. Price \$1.25. New York: The National Temperance Society.

The writer of this new story is a specialist; her books are the product of a mind set upon the demonstration by common incidents of life; of the evil wrought by intemperance. She is full of zeal in a cause that possesses the esteem of every lover of goodness, truth and order, in public and private life. Whenever her name appears on the title-page of a new volume we expect to read another chapter in the career of an unfortunate victim of a corrupted appetite. In the "Turning of the Wheel" she is true to her principles; but they have an incidental or subordinate application; her leading motive is a study of economics and certain phases of the labor question.

She contrasts two families, in the beginning, amid the busy scenes of farm-life—one prosperous, "forehanded," the other in debt, depressed and dissatisfied; and narrates a pleasant tale of the energy and industry of a daughter and son who sought in the factory and machine-shop to extricate their father from his embarrassments. She weaves in theories bearing upon the relation of capital and labor, but with such simplicity that a *doctrinaire* would probably exclaim, "This woman doesn't know the philosophy of the great questions she deals with," because words of thundering sound and dry technicalities have no place in her unassuming reasoning. She gives us pic-

tures of life in the home of the mechanic and shows how patience, ambition and the mind work to render men "lucky" in the commonest relation. Perhaps it is expedient to introduce so many different love-matches as appear in the course of the story but it seems to us that they do not add to the value of the book as suitable for the reading of young people.

MESSRS. WHITE, STOKES & ALLEN, of New York, send us a little handbook on the game of "Draw Poker," by John W. Keller, with a treatise in the same covers on "Progressive Poker." While this may be of much use to a large class in society—we are told that many of our "best people" are very fond of poker—we are radical enough to say that we do not approve such a form of amusement. We have observed that stakes real or nominal, do heighten the interest of the game, and that young people especially value the stake feature—and further it appears to us that the popularity of poker is due in a great degree to the use of the "chips." We certainly prefer amusements that do not associate ideas of gain whether nominal or real but are merely social contests in which wit and intelligence are factors.

OGILVIE'S POPULAR READING. No. 38. J. S. Ogilvie & Co. New York. Paper. Price, 30 cents.

CURRENT EXCHANGES RECEIVED.

The Woman's Magazine is growing. Brattleboro, Vt.

The Platonist: An exponent of Philosophic Truth. Osceola, Mo.

World Travel Gazette: Monthly. World Travel Company. New York.

The Courant: Literary and Insurance Monthly; very neat. Cincinnati.

Le Progres Medical: Weekly. Journal of Medicine and Surgery. Paris, France.

Herald of Health shows improvement; the brieflets of counsel are excellent. New York.

Vegetarian Messenger: Organ of the Vegetarian Society of England. Ludgate Hill, London.

Good Health: Becomes stronger in its prescriptions of hygiene, with age. Battle Creek, Mich.

Cultivator and Country Gentleman: Old and reliable weekly in matters agricultural. Albany, New York.

The Eclectic Magazine, of Foreign Literature: The gleamings for April relate to living topics for the most part.

Phrenological Magazine: This expression of English interest in human science is well sustained. L. N. Fowler. London.

American Art Journal: Weekly. Criticises and comments on what is "going on" in the world of music. New York.

The Pulpit Treasury: With its sermonic and other matters one of the most valuable of preachers' aids. E. B. Treat. New York.

St. Nicholas: April. Much fun and not a little sound talk for the little folks, with several pretty pictures of real and fanciful design. Century Co., New York.

The Swiss Cross, fills excellently the scientific place for which it is designed. Its articles are short and made interesting to all, but especially to members of the Agassiz association whose interests it represents.

Harper's Magazine, for May, will please its many readers. "The Southern Gateway" of the Alleghanies, depicts a very attractive region, both the writer's pen and the artist's pencil are effectively employed; "The Comedie Francaise" is also finely illustrated; "Through the Caucasus," transports us to Russia, with its rugged peasant life. "How Workingmen Live in Europe and America," is a practical argument in political economy. "Mexican Notes," "Back from the Frozen Pole," are all good pieces of writing. Harper & Brothers, New York.

The Popular Science Monthly, for April, contains a variety of reading in which nearly everybody would find interest. Such topics as these carry their own weight as to quality: Brain-Forcing in Childhood; The History of a Delusion, in which the old story of Casper Hauser is riddled; Astronomy with an Opera-Glass; Social and Physiological Inequality; Infection and Disinfection; On Melody in Speech; Bird-Migration; The Scientific Age; On the True Aim of Physiology; Rustic Superstition; Sketch of Leo Lesquereux, with a portrait. D. Appleton & Co., New York.

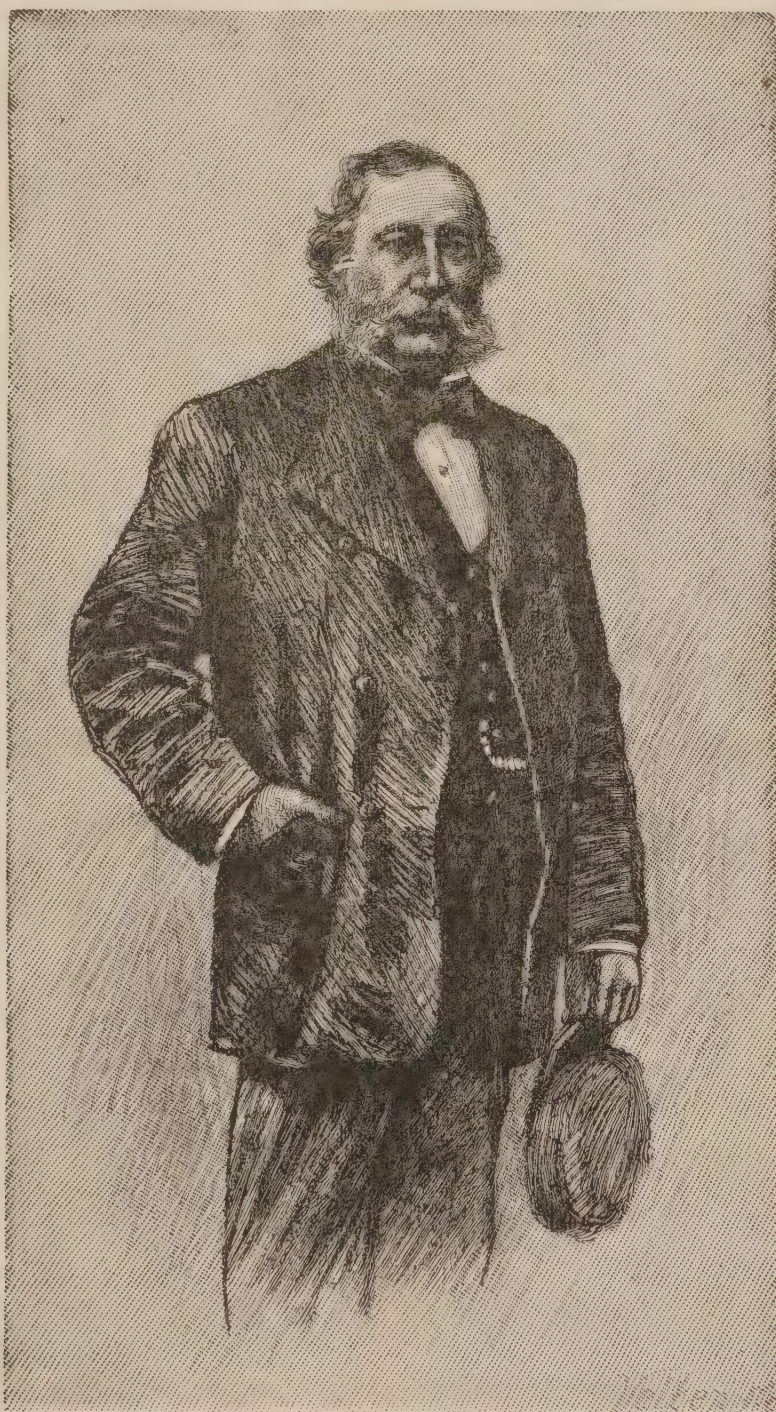
Lippincott's Monthly has a complete novel as the first part of the April number. It is entitled "Douglas Douane," "Belgravia Bohemia," is a sketch of the literary and artistic society of London, with glimpses of Wm. Black, Herbert Spencer, Gilbert, George Eliot, Carlyle, Ruskin, George Boughton, etc., etc. Will Carleton's "Experiences of a Public Lecturer," "Social Life at Princeton." "The Mystery of Cro-a-tan," "A Spring Song," are among other features worth the mention. J. B. Lippincott Co., Philadelphia.

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[WHOLE No. 582.



From "The Forecastle
to the Cabin."

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CAPT. SAMUEL SAMUELS.

SAMUEL SAMUELS, THE WELL-KNOWN SEA-CAPTAIN.

TO arrange a racing match in which two yachts must sail across the Atlantic in the uncertain weather of March seems like a foolhardy undertaking, but that is what the owners of the yachts *Dauntless* and *Coronet* did, and found two of our most able seamen ready to second their boldness and to command the crafts during the race. A most thrilling affair it proved, for weather of the most severe and tempestuous character was encountered by the sloops. Yet so well were they managed and so fast did they sail that the race takes the first place in the history of American yachts. The *Coronet* made the unexampled time of 14 days 23 and 1-2, hours while the *Dauntless* sailed 328 miles in one day, exceeding the best day's sail of the *Coronet* by 37 miles. The *Dauntless* appears to have been beset by the worse weather, but kept resolutely on in spite of the fierce winds and pounding seas. Her chief officer was a man whose fifty years of sea-life had rendered him fearless and equal to every nautical emergency.

It is interesting at this time to recall an incident that occurred as far back as 1859, in which Capt. Samuels and one of our most distinguished phrenological observers were the leading actors. The clipper ship "*Dreadnaught*," of which Capt. Samuels had been the master from the time she was launched in 1854, had earned a considerable reputation for her quick passages, and in the summer of 1859, on the way from Liverpool with 253 passengers, the crew, which was almost entirely composed of new hands, mutinied, and for two or three days the officers and passengers were in great jeopardy. Only the coolness and prompt conduct of the Captain succeeded in quelling a well-devised conspiracy by a large body of armed and desperate men, and bringing the vessel with its passengers and valuable freight safely to port.

The story of the mutiny is told by Samuels himself in a vivid style in his recent

book, "*From the Forecastle to the Cabin*." Three days after the arrival of the *Dreadnaught* at New York, Capt. Samuels with two or three friends, stepped into the office of Fowler & Wells. He was entirely unknown to those in charge of the business, and Prof. Sizer, who was requested to make an examination of his head, had not the slightest idea of the belongings of the party; yet in reading the organization from its express signs by the aid of scientific rules, made a most telling hit. The following is a copy of the stenographer's report of the examination as made at the time:

"You have a strongly marked vital temperament. You have a good body which manufactures blood and nourishment for the brain and for labor rapidly. You need an occupation that will work off steam pretty fast, in order to preserve your health. If you were to undertake to live easily and do but little either with the brain or with the hands and yet live generously, you would become fat and liable to inflammatory diseases, apoplexy, and the like; but if you will be in the open air and knock about in the strife of business, and work off your vitality, you may maintain your health to a good old age. You belong to a long-lived family on one side, or both, and, if you will live properly, you will be likely to endure to about seventy-five or eighty, and carry with you farther down the stream of life than most men do, your youthfulness and vigor.

"You are known for strong social impulses; you are fond of your friends, and live for them as much as for yourself. You almost deify woman, and if you had children you would think they were almost angelic; still, you might not always exercise patience toward them or even toward the woman you would love. You are not remarkably patient when you are in a hurry, if your course of action is crossed; still you are patient and loving when not hurried or annoyed.

"Your Combativeness is sharp and fully developed, which indicates courage and promptness of action, a disposition to meet and master difficulty and to repel assaults and aggressions.

"Your Destructiveness makes you thorough but not cruel. Your Secretiveness is not large—you are a frank, open-hearted man, disposed to speak your thoughts and act out your purposes without a great deal of concealment or deception. You are more apt to be blunt than you are to be too reserved.

"You are known for your independence, for a disposition to make your mark in your own way. You dislike to be subjected to dictation and restraint from any quarter. You can be persuaded more easily than driven. Your pride of character, your firmness of purpose, independence and energy qualify you to take a controlling place in society, and to lead off in business; to be master of your own affairs and to superintend the affairs of others. You would do well as a public officer, as a mayor, legislator, justice of the peace, register of deeds, or sheriff. You are not only able to look after the ordinary affairs of your own business and life, but you can understand and direct public affairs as well.

"Your mind is sharp, ready, prompt, and positive, and your feelings lead you to independence of action. You are respectful, almost reverential, especially toward that which is sacred; still, you are not inclined to submit unduly to anybody, but your Veneration leads you to be polite and respectful rather than to be subordinate.

"Your Hope is not large; still you have confidence in your own plans, and through these plans and energetic effort you have confidence in your future success; but you never expect much where you do not put forth effort. You have but little confidence in luck and chance. You believe in Providence so far that you can trust to the weather, to the revolving seasons, and to natural law

generally; beyond that, or inside of that, you think a man's calculations and efforts must do the rest.

"You aim to do what is honest and fair, and especially that which is manly and honorable. You believe but little that can not be accounted for; are not inclined to accept all that many people believe in connection with spiritual subjects. You are more of a naturalist than a metaphysician, are governed more by philosophy than by faith.

"You judge well of character, and rarely make a mistake in your first opinion of strangers. Your Benevolence is large, and leads you to sympathize readily with those who suffer. You are kind-hearted, and when a man is down, you aim to help him up; but as long as he has health and energy, you feel that it is his business to do what he can. You never give to a man that is idle, dissolute and lazy, if you know it; but those who try and then fail, you help as far as you are able to; especially you would help widows and children and those who could not well help themselves.

"You have business talent in reference to merchandising, lands, operating in stocks and property of various kinds; in other words, you have strong practical common-sense, which may be turned in almost any direction to advantage.

"You would appreciate whatever is mechanical; if you want to build a house you understand how you want everything done, and are able to superintend and criticise it. You have a faculty for managing men and controlling their dispositions, either in public bodies or in a private capacity. You might preside over a stormy convention or, as one of the speakers, govern your side, and palliate the other. In other words, you understand the motives and dispositions of men well, and rarely meet a stranger that you do not decide about how to manage him; then you are genial, friendly, warm-blooded, respectful and polite; and those who can be affected by politeness, by affability, by

the friendly dispositions, by practical sense, you can meet them on their own ground, and it seems to turn out generally that people think very well of you, or at least so far as to allow you to lead them.

"You have not a speculative intellect—it is much more practical. You seldom seek remote causes and consequences, or to refine and double-refine an argument, but you strike for that which is palpable,

and see that every person was working to advantage and had the right material to work with. You can bring "order out of chaos," and keep your business so that you can understand it, though to others it may seem mixed up.

"You have talent for talking, and, had you been trained to a profession requiring public speaking, you would have succeeded well. As a lawyer, for example, you could carry all the facts in



From "The Forecastle to the Cabin."

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THE DREADNAUGHT.

probable and easily understood, and that which most naturally rises out of the subject, and nine times in ten you are correct. You could conduct a large business which was full of details, and which required personal attention all about the establishment. You are quick to see when anything is going wrong, or being improperly managed. You would look after the waste, and wear, and loss,

your mind and apply them to the case pertinently, and you would generally be able to carry your point where the chances were equal. You have the magnetism which would sway a jury and conciliate the court. You would do well as a superintendent of a railroad, or contractor for constructing roads, bridges, buildings, and the like. You can hardly content yourself to be

narrowed down to a single channel of prescribed duty and effort. You want elbow room, and can make business for yourself. If you were thrown out of everything you had ever done, to-day, in three months you would have found out something you could prosecute with success and respectability.

"You are known for social power, for bravery, and thoroughness, for independence and will-power, for respect, for power of criticism, for practical judgment, and for an independent, frank cast of mind and character. You are distinguished for your courage and self-reliance, and had you been the commander of the ship *Dreadnaught*, which arrived at this port three days ago, you would have pursued much the same course with the mutineers as did Capt. Samuels.

"*Subject*.—I am Capt. Samuels himself.

"*Examiner*.—Ah! I am sorry you mentioned it just yet, but since you have done so, I will say no more."

Samuel Samuels was born in Philadelphia, March 14, 1822. At the age of thirteen he became dissatisfied with his home relations and with his head full of the wonders of the world ran away and went on board a vessel as cabin-boy. Two years later he tried to learn a trade, but his roving nature made the confinement of an apprenticeship intolerable, and, after serving two years he took "French leave," and went to sea again.

In his book, published by Harper & Brothers recently, which is a stirring narrative of personal experience, he tells how he began at the very bottom of a sailor's career and passed through all its hardships before he reached the top of his profession as captain of a crack Liverpool packet, and later became known as the most popular and successful commander of American deepwater racing yachts. He was beaten, starved, and robbed; he learned his seamanship at the rope's end; he was taught to lie, steal, drink and fight; he deserted in almost every port that he touched; he sailed on almost every kind of ship, to almost every part of the world; he was repeatedly drugged and "shanghaied;" he was more than once in jail. There could hardly be a better lesson for a boy who wants to run away to sea, or have his own way in the world, than the early chapters of this autobiography, crowded as they are with suffering, violence and crime. Samuels however, had some strong traits of manly character, for in midst of the worst associations, and, so far as his book shows, without much outside influence he developed an ambition to rise. With the help of a friendly captain and the captain's wife he learned enough of navigation and mathematics to secure a berth as second-mate. Enterprise, daring, ingenuity and a good knowledge of the sailor's temperament did the rest for his advancement; and a happy marriage at the age of twenty-three seems to have completed his renovation.

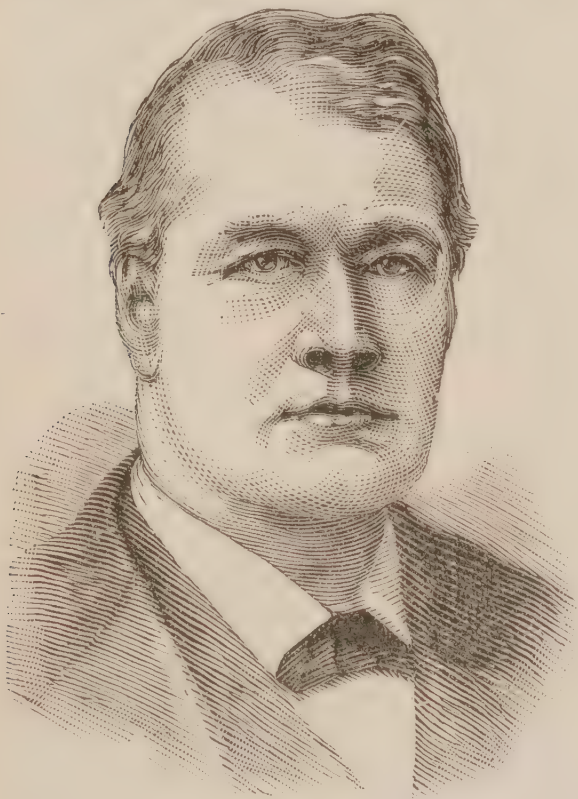
FAMILIAR TALKS WITH OUR YOUNG READERS.—No. 18.

CAUTIOUSNESS.

I NOW ask your attention, my young friends, to the consideration of a faculty which is one of those most generally used by people of all classes and conditions. You know that the exercise of a faculty is dependent upon "circumstances," as we call them, and a man may be so placed that he does not need

to use more than half or two-thirds of the faculties and organs that belong to the human mind. For instance, a private soldier in the army has a daily routine to go through. He gets up in the morning at the sound of the drum, and joins his squad or company for the drill. Then he goes to breakfast. After that

there is more drilling, or evolutions on a larger scale than those of a single company. Then comes dinner, and during the afternoon he may have simple duties to perform that relate to his uniform, his weapons and equipments, with a little leisure to do as he pleases. Then there is the call to supper, and not long after that the signal for retiring and "lights out." Such a life in camp or barracks is very one-sided and machine-like; the soldier must yield complete obedience, and everything is provided for him; he has little care and no responsibility, except to do as he is ordered.



CAUTIOUSNESS—MODERATE. MR. DENBY.

Now, as the exercise of faculties depends upon stimulation, and the necessity for providing for oneself is one of the strongest of stimuli, the soldier evidently lacks an important condition in brain and mind action, and there may be but little use of organs like these: Self-esteem, Inhabitiveness, Hope, Spirituality, Ideality, Sublimity, Agreeableness, Causality, Tune, Constructiveness, Alimentiveness, Calculation, Eventuality, Wit, and others, because his simple everyday duties do not bring occasions that excite them particularly. Hence it is that the

common soldier becomes in time little more than a human machine. A man who has a business that keeps his eyes and ears on the alert, and his reasoning powers in constant exercise, like a merchant, a lawyer or a physician, will improve in mental ability, and become a "smarter" man from year to year, but he may not use some of his faculties much, like Secretiveness, Ideality, Friendship, Veneration, Inhabitiveness and others, and of course the want of their influence in his character will be seen.

We speak of "well-balanced" people, and they are those whose faculties in general are exercised; they are pretty well organized on the intellectual side, in the moral and social regions, and have enough of the physical and selfish elements to value the "creature comforts" of life. They like to study and think; they have respect for the good and true, are fond of home and friends, and have more or less of desire to get ahead in the world—to make a fortune and be independent. For a balanced organization in mature life it is necessary that you should, as young people, put yourself in a place where all parts of your brain will be made active and any one set of organs will not have a special chance to get the better of the others; and so you ought to try to keep them all in a harmonious state, each influencing the others in a steady, even way. Some of the faculties will be naturally stronger than others, and show their superiority in circumstances that favor their action; but if one can arrange his daily life so that he can avoid things that arouse the stronger feelings and affections that make trouble for him, he will in time train those that he wants to be stronger and have more to do with his affairs. Sometimes boys, who give their parents much anxiety on account of their fiery tempers, get into places with men of quiet, orderly ways, and in the course of five or six years they become so changed in disposition that they astonish their friends. The effect of being associated

with a steady, even-going, orderly master for years is pretty sure to show itself in a young person's life, and it is a blessing to a boy or girl who is fractious, excitable and high-tempered, to get into such a relation. You can see for yourselves that they need discipline and regulation in their early life, or they must grow worse and worse. For a hot-headed wilful boy or girl to be with people of irritable, fretful temper all the time would be as bad training as they could have, and I wish you to realize the fact, and to avoid as much as you can, in school and everywhere else, associates that arouse and bring out the "bad" elements in your character.

Now I come to speak of Cautiousness this time—one of the faculties given us by the Creator for the purpose of protecting and saving us from trouble that we might make, or be exposed to. As a writer has said: In defending his home and family the excited organs of Combativeness and Destructiveness might push a man upon his enemy's weapons or fling him under his feet, or he might stay on his own premises until his enemy came and hurled deadly missiles through the windows. But to guard him against such conduct he has a vigilant sentinel in the organism of mind that gives him warning of danger, and leads him to prepare for it, and take care of himself. The center in the brain where this sentinel lives, is close to that of Combativeness, being just in front of the upper border of that organ; and there it seems to look over the domain of those faculties generally that in a state of excitement, and uncontrolled, would drive one into extreme danger and embarrassment.

I need not say that we are, as human beings, subject to harmful things of one kind or another constantly. Our life is full of uncertainties, and if there were nothing in the line of a feeling or quality to make us watchful, fearful, careful, we should "come to grief" in a thousand ways, and it is probable that man would be very shortlived. Consider how ac-

tive this faculty is in children—the time when it is most needed because of their weak intellects and inexperience! When any sign of danger is noticed by a little child, how he screams and runs from it!

You see a fat, lazy-going fellow, lagging along the side walk and careless of the brisk people who find him in their way when they wish to pass along. Somebody shouts "mad dog!" and, dear me, what a change comes over him! His logs of legs move as if they were stimulated by a galvanic battery and he



CAUTIOUSNESS—LARGE. MR. CRENSHAW.

jumps along with great agility to get to a place of safety; runs into the first doorway that he sees, and only looks around when he thinks himself out of the way of the dreaded beast.

No other organ acts more promptly, and its influence, when strong, is seen in almost everything that a person does. It "whispers to Acquisitiveness of future want, of losses and poverty; admonishes Approbativeness to beware of such society as will bring disgrace; it warns Parental Love to incite the mother to watch against all evil to her child; it

stands at the elbow of Hope, true to its location in the head, to suggest the necessity of laying a solid foundation for anticipation, and frequently casts shadows on the bright images which Hope creates; it stimulates the intellect to make such investigations as will minister to the well-being of the individual, and plan such a course as will give security to the possessor."

When very strong Cautiousness is a drawback in the character because it renders one too fearful, over-anxious, and disposed conjure to up all sorts of misgivings, and to imagine that trouble lurks on every side. People with the faculty over-active easily have the "blues;"

ate Hope and Spirituality, and do not exercise their intellects much.

A man may be very much frightened, and yet be prudent and wise in his action, because he does not allow the instinct of fear to get the better of his judgment. You know that when people are struck with a panic they are reckless and headlong, and may rush blindly into the jaws of death. Fires have occurred in theatres and schools, and the suddenness of the cry "Fire!" has thrown the whole assembly of people or the children into a state of terror, and all commenced to crowd and push each other wildly, preventing escape and causing a hundred deaths and great sorrow, where a little



"OH, COME IN, MAMMA; IT'S JOLLY!"

when any little grievance or disappointment occurs they magnify it, and talk as if they had nothing more to live for and it was useless to try to get along. Many suicides are the consequence of allowing this feeling to get the mastery of the mind; and some people have killed themselves for really small reasons. Some little thing has excited their fear, and they have gone on worrying and fretting until everything seemed black and blue in the present and the future, and they thought that death would be a relief. Suicides usually have but moder-

coolness and order would have saved every one. It seems to me that no faculty so quickly makes a fool of us as excited Cautiousness, and what is intended for a kind purpose is made a source of much harm because it is not regulated.

Now and then we meet with people whose Cautiousness is small, and then the trouble with their character is of a very different sort; they haven't fear or watchfulness enough in their composition and, unless well-trained intellectually and well organized morally, make a great deal of trouble for themselves and

others. They are over-venturesome ; will run too many risks in business, and expose themselves to danger rashly. They are very dashing as soldiers if they have Combativeness and Love of praise. You remember how heedless Charles XII. of Sweden was of cannon-balls and bullets when in battle ? He had very small Cautiousness, and did not know what fear was. General Custer, who was killed while fighting the Indians in the mountains of the far West, had no great amount of the faculty ; and Mr. Denby, of Indiana, who has lately been appointed Minister to China, does not appear to be very much marked that way. He served in the late war and I infer, from the manner in which he acted as a soldier and officer, that he was no fearful, timorous man.

Mr. Crenshaw, the collector of Internal Revenue for Georgia has large Cautiousness, and should be a careful, prudent officer. The expression of his face is in keeping with this characteristic ; he looks solicitous, even anxious, and does not take responsibility as something to be lightly carried.

In the fancy sketch of our artist we have a scene that is not uncommon in summer days at the seaside. Many of you know of similar occurrences. A family has gone to the beach for a bath-

ing spree, the young folks have speedily gotten on their bathing duds and run, screaming with delight, into the foaming tide, but mamma is timid and hesitating, and hangs back. Her husband draws her toward the water with difficulty, and the children wonder why mamma is afraid when everybody thinks it "so nice." Well, there is some good cause for her fear ; she has heard of many accidents at the bathing resorts ; people being drowned in the very sight of their friends, and even when among them. Perhaps modesty has its effect in supporting Cautiousness, because most people do not look very nice in bathing rig, especially after they have soaked the costume.

One word more, and I must close our interview this time. You should be careful how you excite this feeling in others, especially little children. Don't play, or rather prey, on their fears. Some boys think it fun to scare those who are timid. This is altogether wrong ; it is cruel. You who are brave and self-assured naturally can not realize how much the timid suffer when frightened. You will do really good work if you encourage your over-cautious associates to be stronger and try to subdue their sensitiveness.

EDITOR.

THE CHRISTIAN RELIGION, ITS HISTORY AND DIVISIONS.—NO. 8.

THE LUTHERAN CHURCH.

AMONG the most prominent of the leaders of the reformation in Germany was Martin Luther. Born of humble parentage in Eisleben, Saxony, in 1483, he was educated for the law ; but after having taken the degrees of A. M., and Doctor of Philosophy, circumstances occurred that turned his thoughts to the consideration of religious matters, and he became a monk in an Augustine convent, at Erfurt, in 1505. Here he lived three years, spending the time in such discipline as tended to mortify the

flesh ; in the study of the Bible, and the works of the "fathers," especially those of Augustine. He was ordained as priest in 1507, and soon after accepted a professorship in the University of Wittenburg. At this time, and for long after, Luther was in accord with the Roman church, although his teaching showed such originality of thought as to awaken attention and cause the rector of the University to remark, "This monk will puzzle our doctors and bring in a new doctrine." There was evidently a work-

ing in his inner consciousness that even he did not understand. On the occasion of a visit to Rome, he climbed on his knees, as was the custom of devotees, the *scala santa* opposite the Lateran church, but hearing, as he said, an inward voice constantly repeating "The just shall live by faith."

In 1517 the Pope, in order to raise money to pay for the completion of St. Peter's church, issued permission for the sale of indulgences that should exonerate the purchaser from the penalty due to transgressions. A Dominican friar, named Tetzel, appeared in Germany, preaching in unmeasured terms the power of the Pope to forgive all sins, and the efficacy of these indulgences. This aroused Luther's Combaticiveness, and the spirit of reform that had so long lain dormant was awakened. He formulated his opposition in what are known as his 95 Theses, or Affirmations, and posted them on the door of the church at Wittenburg, challenging criticism, and proposing to defend them against all attacks. Thus began the war between Luther and the Pope.

It is not my province in this article to follow the details of this conflict, but rather to show what grew out of it. Once cut loose from the idea that the Pope was infallible, and with eyes opened to see errors in the doctrines of the church, Luther was impelled to set forth his own beliefs, the germs of which appeared in his 95 Theses, and he, as well as the community at large, was surprised to see how readily they were embraced by hundreds who had been supposed to be devoted churchmen. As he studied, reasoned, preached and taught, his mental vision was cleared and his labors resulted in establishing a branch of the church on what he believed to be scriptural foundation.

In 1530 Charles V. summoned the princes and leading men of Germany to a Council or Diet at Augsburg, with a view, among other things, to harmonize if possible the existing religious difficul-

ties. In furtherance of this end he required the Protestants to present a statement of the points of doctrine in which they were at variance with the Catholics.

At a conference during the previous year the followers of Luther had agreed upon certain articles of faith or belief that were mostly of a doctrinal nature. These were reconsidered by a committee appointed for the purpose, and supplemented by others, many of which were more practical, and at the request of John, the Elector of Saxony, laid before him at Tiran. With these as a foundation, Melancthon prepared a document, to be presented at Augsburg in response to the requirements of the Emperor, that he called an "apology," but the Diet named it the Augsburg Confession. Luther was not present at the Diet, being then in disfavor with the ruling powers, and although it is believed he was consulted in the preparation of the confession, and gave it his approbation, it bears unmistakable marks of the character of Melancthon in its calmness and conciliatory spirit. A reply to this paper was made, which Melancthon discussed in a spirit of love and harmony.

The Confession contained twenty-eight articles of faith, doctrine and practice, and, signed by six Protestant princes and the representatives of two free cities, was presented to and read before the Emperor and the Diet, June 25, 1530, and was supposed to be a complete declaration of the Protestant body, then known as the "Evangelical Church," for it was not until after this time that the name Lutheran was first applied to it in derision by Eck, a doctor of theology and bitter opponent of Luther, against whom he had obtained the Pope's bill of condemnation.

Although prepared by himself, Melancthon did not look upon the Augsburg Confession as unalterable or binding, and with a view to see greater harmony among Protestants, he soon began to rewrite some of the articles, as

he said, to further explain them, and, in 1540, published his *Confessio Variata* that differed with the Confession in several respects. Especially was this the case in regard to Article 10, on the Lord's supper, in which he endeavored to so state the matter as to make it acceptable to Lutherans, who held the doctrine of a corporeal presence of Christ in the bread and wine, or Transubstantiation, to Calvinists, who believed in a spiritual real presence thereof, and to the followers of the Swiss reformer Zwingli, who differed with both and believed the bread and wine used at the Eucharist were only emblems of the body and blood of Christ. He was unsuccessful in his attempt at unity, and only succeeded in gaining the disfavor and abuse of that portion of the church that insisted on adherence to the unaltered Confession; but as the original copies of that Confession, both in German and Latin, are no longer extant some questions relative thereto, must remain unsettled. Nevertheless the controversy gave rise to that branch of the church known as "Reformed."

I should state that besides the Augsburg confession, or in connection therewith, or in explanation thereof, are what are known as the three general creeds, the Apology for the Confession, Luther's Catechisms, the Amalcauld Articles, and the Concordiæ Formula, which, together with a preface signed by 51 princes and officers, representatives of 35 cities, were issued in one volume in 1580, under the name of the Book of Concord, which has remained the exponent of the Lutheran faith.

Luther was not an organizer as was Calvin, but some plan for church government was necessary. The idea of apostolic succession of Bishops was abandoned, but the ruling princes as Supreme Bishops, appointed Episcopal officers who were to visit the churches and have a general supervision thereof. The severance of church and State did not seem so necessary to Luther as to

Calvin, and in several of the European countries, and especially in Denmark, Norway and Sweden, the Lutheran is the established church. Ritualism and images were to an extent preserved. In Germany, church government is exercised by Consistories or Councils composed of ministers and laymen, and of superintendants appointed by the Government. The rules relative to church membership are much less stringent than in most Calvinistic churches, and in countries in which it is the established religion, none are compelled to accept the faith or to attend religious services.

The main points of belief held by Lutherans, may be stated briefly as follows: The Bible is the word of God, and the only absolute rule of life, faith and doctrine. Whatever is not found therein is left to individual reason and conscience. While no power of church or State can relieve from the obligations the Bible imposes, neither has it authority to dictate obligatory rules, as to matters in relation to which it is silent. Creeds in themselves are not vital, but as they are the exponents of the truths set forth in the Bible, those who will not subscribe to them are held to reject the Bible teachings.

The Sabbath of the Jews is abolished, but the observance of the Lord's day on the first day of the week is of apostolic institution. Many controversies have arisen on this question, but prominent theologians of the church, hold in accordance with Bible teachings, that one day in seven was set apart at the creation of the world for rest from labor, and the performance of religious duties.

Baptism is necessary to salvation, not so much however the actual performance of the rite as the belief in it as a sacrament. They hold with the Nicene Creed that there is "one baptism for the remission of sins." Infant baptism is approved, but the salvation of those dying unbaptized is not questioned—not because of their personal innocence, but by the effects of the redemption through

Christ. Of the Eucharist they hold that the presence of Christ at the Lord's supper is not of a physical or earthly nature ; and while they deny that the body and blood of Christ are literally present in the bread and wine, they hold that they are present in some supernatural and mysterious way, a sacramental union of which cognizance can be had by the reason only and not by the senses.

The doctrine of the Trinity is received by the Lutherans mainly as it is taught by the Catholics. They hold the dual nature of Christ, the human and divine, and that while they are in a manner inseparable their attributes are entirely separate, and consequently the divine Christ may be where the human is not.

On the questions of original sin, the atonement, immortality and future reward and punishments, the Lutherans and Calvinists are mainly in accord ; their principal points of difference being : 1. Baptismal regeneration and ordinary necessity of baptism for regeneration ; 2. The real presence of Christ's body and blood "in, with and under" the bread and wine, but distinct from transubstantiation ; 3. The union of the human and divine natures of Christ, so that his humanity is conditionally omnipresent as well as his divinity, and consequently, really and truly present at the Communion ; 4. Universal vocation, or calling, of all men to salvation, with a possibility of a total and final fall from grace ; total depravity and slavery of the human will, and unconditional salvation of the predestinated elect.

In the United States there were many Lutherans among the earliest settlers, and they now rank as third or fourth in the list of Protestants. Their influence is not in proportion to their numbers, which may be accounted for from want of proper organization, and the fact that in but a small proportion of the churches are the services in English ; Lutheranism being preached in this country in thirteen different languages, viz.: English, German, Swedish, Danish, Nor-

wegian, Icelandic, Finnish, Bohemian, Polish, French, Servian, Slavonian and Wendian.

The first Lutheran emigrants came from Holland to New York in 1621—but were not allowed by the Dutch to establish a church organization. In 1636 a second body came and settled on the banks of the Delaware. In 1710 many Lutheran refugees settled on the banks of the Hudson, where large grants of land were given them, but which were subsequently taken away in what is believed to have been a dishonest manner.

For a long time most of the settlements of Lutherans were without settled pastors and lacking in organization, but they adhered firmly to their religious tenets. In 1742 came Henry Melchior Muhlenburg, sometimes called the patriarch of Lutheranism in America, who succeeded in establishing the denomination on a firmer foundation ; but it was not until 1748 that any concurrent action by the different churches was had. In this year the German Evangelical Lutheran Ministerium, of Pennsylvania, was formed in Philadelphia, composed of ministers and lay members. This was followed by the establishment of synods in different sections, but no General Synod was established until 1820.

Even now there is not a complete organization of Lutheran churches, many preferring not to be members of the General Synod, although nearly all agree that "the doctrines of the unaltered Augsburg Confession, in its original sense, as throughout in conformity with the pure truth, of which God's word is the only rule, should be the basis ;" they admit that the other confessions of the Evangelical Lutheran church are of necessity, pure and scriptural.

Lutherans acknowledge no specific form of church government, but for the most part have one in which the main principles of Presbyterianism and Congregationalism are blended. Three judicatories are generally acknowledged, the council of each individual congrega-

tion, the district synod, composed of all the ministers and one lay representative from each congregation in the district, and a general body, synod council, or conference, whose powers are mostly of an advisory nature. In the synodical conference the government is partly Congregational and partly despotic, but the pastor of each congregation has autocratic powers.

The majority of Lutheran churches are united to one of the four great bodies, viz: The Evangelical Lutheran Synodical Conference, of North America; the General Council; the General Synod, and the Southern General Synod but there are several churches that are not united with any of these great bodies.

From the latest statistics of the Lutheran

Church in America, as given in "Stall's Lutheran Year Book," for 1887, we learn there are 3,990 ministers, 7,573 congregations, and 930,830 communicants.

The communicants are divided as follows:

General Synod.....	138,988
United Synod—South.....	29,683
Synodical Conference.....	297,631
General Council.....	258,408
Independant Synod.....	206,120

Total..... 930,820

Of Lutheran papers and periodicals there are published in English 42, in German 53, Norwegian 22, Swedish 9, Danish 4, Finnish 2, Icelandic 2. Their educational institutions comprise 19 theological seminaries, 26 colleges, 27 classical seminaries, and 12 seminaries for young ladies.

LESTER A. ROBERTS.

ALL LIFE IS BEAUTIFUL.

All life is beautiful; the humblest flower,
That cheers the dusty highway with its
smiles.

Has something in it of a heavenly power
That oft my heart of weariness beguiles.

The blue-eyed violet of the glen and grove,
Spring's sweetest offering, is a thought of
God;

A tiny poem whispering of His love
And making eloquent the soulless clod.

A shining pebble in the river's bed,
That scarcely makes a ripple where it lays,
May teach a lesson worthy to be read
By all who murmur at the world's dull
ways.

The soft green moss we tread beneath our
feet,
The waving grass that carpets hill and
plain,
Take to their generous hearts the dew and
sleet,
And uncomplaining greet the autumnal
rain.

The world is filled with elements of power
Which only wait the chemistry of thought
To make them known, and fill each passing
hour
With wonders mightier than the past e'er
wrought.

Earth, air, and ocean, teem with life un-
seen—
Undreamed of by the sages of our time—
Its subtle links pass not before the screen
On which are shadowed all our hopes
sublime.

We might see more if we were not so blinded
By lusts of earth, its pomps and fleeting
shows;
And richer grow in soul, were we so minded

To read the lessons Nature's works dis-
close.

We walk with faltering feet and downcast
eyes

Through God's vast treasure-house of
truth and love,
And feel not half the heavenly harmonies
That float around us from the realms
above.

We think too meanly of the world without,
Too little of the wondrous world within.
O'er canopied is each, and wrapped about
By the dear love that knows no storms or
sin.

Like moles or bats men grope their way
thro' life,
Dazed by the light their lamps of wisdom
give,
Are all absorbed in petty cares and strife;
Heart starved, in poverty of soul they live.

Why is it thus? Since God such bounteous
store
Has spread before us, why not use it all?
Why sit like beggars starving at the door
Where plenty smiles, nor heed his gener-
ous call?

Oh, could our souls but rise above the din
Of the world's discord, lose its greed of
gain,
Then might we turn to the great world
within
And dwell where order, peace and beauty
reign.

Then should we trace in everything we see
The love that gives us whatso'er we need,
And feel our souls grow large in liberty,
The liberty that makes us free indeed.

BELLE BUSH.

Belvidere Seminary, New Jersey.

J. W. LOWBER, A. M. PH. D.

THIS portrait has some marked indications; the first of which we will note is health, bodily vigor, vital power, working force, a strong hold on life and a willingness to put forth effort. The brain is broad at the base, showing courage, enterprise, force of character,

requires to be treated with manly energy and courage.

That is a regular soldier's nose, and see how the face backs it up, the broad cheek bone and breadth of head running backward from the cheekbone; such development is always related to a large



JOHN W. LOWBER, A. M. PH. D.

economy, self-control and prudence, and the ability to cut his bigness and work his way without help where earnest duty and hard work are required. As a boy he used to play with heavy things, and to struggle with boys larger than himself; he has a relish for overcoming, for meeting and mastering that which

chest and that kind of physical development and enterprise which seeks to exercise itself.

He would like argument as a lawyer or legislator; he would like large business in the field of industrial effort; he enjoys the sight and sale of heavy machinery and whatever of apparatus

is related to large results and heavy work. He may appreciate that which is nice and fine, such as watch work and delicate machinery, but nothing stirs his manhood so much in things physical and tangible as mighty machinery and apparatus that can lift heavy weights. A derrick that could swing a locomotive and carefully let it down into the hold of a ship would feed certain factors in his mentality, and he would delay his dinner till it got cold to see such great work done. Now whatever he has of morality, intelligence, ambition or enterprise is backed up by these elements of earnest force which lead him to laugh at difficulties and to mock at impediments.

His intellect is clear and sharp and well-poised; gathering his own facts he is always sure of his premises, and from these he reasons logically, clearly and directly. He is not mythical or mystical; he has a wonderful faculty of making complications seem open and clear. His Language is full and rich, but pertinent and direct, and he must have a peculiar grip in his statements.

He has a cordial sympathy, affection and friendship combined with a good degree of Agreeableness and refinement; consequently his relations to society are pleasant and mellow; but people soon learn that he has executive ability and that he backs up his influence with his plans and exertions, and will have a leading place in the field of endeavor. He is anxious to please; is willing to serve; is capable of governing; consequently he will wield influence like an elder brother, making himself, in a certain sense, servant of all and yet master of all.

His intellect is like his mother's, intuitive, ready, prompt and practical. He has mechanical talent and artistic taste, and these would aid him in thinking and stating his thoughts; he would get more matter on a page, would weave in particulars so that they would seem consecutive and methodical and natural, and yet get as much of history and fact on one page as many a good writer would get on three; consequently his intellectual work, sustained, urged and emphasized as it must be by his force of character, will always carry influence which will seem to be final. If he were a lawyer he would be remarkable for condensing a whole case into a few curt and terse sentences; and his summing up would be influential, and would seem to supplement and supercede whatever had been said and done before.

He has strong Reverence and Spirituality; he has hopefulness and enthusiasm. People who meet him and hear his thought and statement, will have a feeling that the subject is stated plausibly, and the probabilities of desired results will be very decided. If he were educated for it by training and experience he would make a good chairman of a Committee of Ways and Means in a legislative body; he would provide for every objection and prepare for every emergency, and though he has a world of force he has a great deal of good humor and mellowness and pleasantness in his manner. He can say "No" which will be very decided and yet not abrupt; it will be uttered in a way that will not wound and hurt, and seem to be uttered from the necessities of the case. If he were a judge on the bench, his charges

would be so fair and reasonable that he would not show partisanship; he would be considered just and reasonable.

He is well-qualified to make friends, because he can treat those that he disagrees with, in a way that will not alienate them personally. He is a natural teacher and capable of being master of people and of affairs, and as a boy he was always a leader and yet not autocratic; he governs by way of suggestion, and yet the suggestions are so reasonable and are stated with such apparent fairness that both sides will co-operate and accept his view of the case.

He is a natural student; would excel in science, in languages, and literature, and will carry in his memory whatever he may acquire in the line of scholarship, and utter it in a way that will show that he understands his position and knows how to state it admirably. N. S.

Prof. Lowber was born in Nelson County, Ky., August 30, 1847. He is 5 feet 9½ inches high, weighs 178 pounds, and has a head measuring 23 inches in circumference. His early years were spent on a farm, and of necessity he handled the plow and hoe for sustenance; but, from his boyhood, he has been ambitious of intellectual and moral improvement in all that tends to ennoble and elevate human nature. In addition to the ordinary books of the country school, others on art, science, philosophy and religion were sought after and their contents devoured with avidity; so that, notwithstanding his inheritance of poverty, his large, active brain, sustained by an excellent physical constitution, enabled him soon to overcome every obstacle to his ambition, and placed him in circumstances to enter systematically on a course of education. Much of the expense at college must be met by manual labor, but notwithstand-

ing this his progress was rapid so that, when only in the junior class, he was selected by the president of the college to teach a class in Greek, as the Greek professor had recommended him as the most thorough in that language of any student in the University. Indeed, he has made it a point to excel in every department of study that he takes up. For months before his graduation he stood at the front in every study. In linguistic acquirements he has made much progress, having studied some seventeen different languages and is able to speak some of them with considerable facility.

Prof. Lowber, is a graduate of Butler University, Indianapolis, Indiana, having taken there the degrees of B. A. and M. A. He is also a classical graduate of the College of the Bible, of Kentucky University. He studied as a post-graduate in a number of Eastern universities. In 1880 he passed the examination for the degree of Doctor of Philosophy, in Syracuse University. The examination lasted twenty-five hours, and his examiner, Dr. Bennett, thus speaks of him: "The examination was thorough, and revealed a thoroughness and comprehensiveness of scholarship which justly entitles him to this high honor."

Since completing his college studies he has spent some twelve years in the class-room as teacher, having held many positions from that of teacher in the public school up to president of a college; and while devoting himself mainly to the ministry he has had several calls to the presidency of colleges, and is now frequently called on to deliver the annual address at some institution of learning.

Prof. Lowber, is also an ardent temperance advocate, and interested in nearly all the temperance movements of the day, and his addresses have been highly complimented. His reputation is such that he has been invited from England to enter the lecture-field and devote his time to the subject of temperance in that country.

Though amply endowed by nature and education for varied professional pursuits, Prof. Lowber's chosen lifework is the Christian ministry. In his youth he became connected with the "Christian Church" or "Disciples," and, like the late President Garfield, retained his connection with that denomination. He has written much for religious papers, having been co-editor and proprietor of the *Apostolic Church*, and since that periodical was consolidated with the *Apostolic Guide*, has been a member of the "Guide Publishing Company" and associate editor of that widely circulated weekly. His contributions are of a high order; and exhibited ready command of his educational resources. He is also one of the able contributors to the religio-scientific journal the *Scientific Arena*, the organ of the Substantial Philosophy, edited by Dr. A. Wilford Hall, its founder, who thus writes of his abilities: "He became an early contributor to the *Microcosm*, and his terse and elegantly written philosophical papers we are proud to point to still as among the finest specimens of logical reasoning to be found in those volumes."

As a preacher, Prof. Lowber has met with marked success both as evangelist and pastor. He was for several years pastor of a church in Scranton, Penn. and during his residence there became president of the Pennsylvania Christian Conference. He is now pastor of the first Christian Church of Paducah, Ky., one of the largest and wealthiest in the State, and is meeting with constant success in carrying forward the work so signally inaugurated by his late distinguished predecessor, Elder George A. Flower.

In the lecture field Prof. Lowber's success has been gratifying. He handles the subjects of art, poetry, philosophy and history with great facility, and his services in these directions are in frequent demand. Aesthetics, as a department of philosophy, has for him many charms.

Mental science, as developed in the works of the phrenologists, has been with Prof. Lowber an interesting and instructive study. Early in youth, Combe's work on the "Constitution of Man" fell into his hands, of which he says: "It has had a wonderful influence on my life; it is one of the best works in the language." He has always accepted and advocated the doctrines of Phrenology, and, when resident in the city of Louisville, Ky., was president of a scientific society, in which the advancement of this science was a leading characteristic. He thinks Phrenology should be taught in all our schools.

He has taken much interest in the Chautauqua movement from the beginning and will probably be graduated this year with six seals, expecting in a few years to reach the highest order. He is also a member of the American Institute of Christian Philosophy, and is keeping up with its work. In all these departments of study and work everything is so systematized that he has no trouble with their prosecution. His addresses are generally published and frequently copied into a number of papers.

M. C. T.

GENERAL JOHN A. LOGAN.

Slowly, silent and sorrowing,

They lay the brave hero to rest,
The dew-damp of death on his forehead,
And his cold hands crossing his breast.

No more the call of his country
Can stir his bold heart in its pride,
No more the bugle notes wake him
At the head of his column to ride.

Sleep, patriot, Honor reveres thee,
Thy name is the nations, not thine;
Thy fame shall live on and forever,
As the stars i' the firmament shine.

C. C. COLLINS.

There can be no high civility without a deep morality. Civilization depends on morality. Everything good in a man leans on what is higher. This rule holds in small as in great.

DORMANT ABILITY.

HUMAN conception can not fathom the amount of brain power which lies dormant about us, the waiting ability which the masses of time cover while it awaits the sunshine of opportunity.

Men have a better chance to develop in outer light than women. We admit the freedom of our almost equal educational advantages. We have come up as a sex from the centuries of darkness and thank you, our brothers, for extending a helping hand. Yet, as some of you would say, we are "never satisfied." This dissatisfaction is not a peculiarity of sex. Ambition is the center of strength around which the human race revolves. Contentment was never the nucleus of power. We must be up and doing while it is day, for the night cometh wherein no man can work.

Recently a friend of mine just returned from Europe, a talented professor and author by the way, said, in relating incidents of his travels, "If some of our American women who are clamoring for fuller rights had seen the sights I did in rural districts of Germany and Switzerland they would never open their mouths again. I saw a Swiss peasant have his wife and daughter hitched to a plow, while he held the lines and drove them as vigorously as we would able horses. I saw women in Germany cutting fields of grain, and I'll tell you how they did it. They stooped down and took a little wisp of the grain in their left hands and whacked it off with a sickle swung in their right. Women in America have a better time than anybody in the world; they have so much done for them they don't know what to ask."

It may be true that we do not know what to ask, therefore most of us have no personal requests to prefer. Equal room for development, and standing ground, which we are able to occupy, is

all that the boldest have required, and from a general standpoint one sex is as near contentment as the other. The humdrum monotony of mechanical physical action is debilitating to any person of ordinary mental status if there is no live energy behind it, no expanse of thought beside it, and no broader space to be reached beyond.

Whether we are men or women there is a great work for us to do. It is true, men hold the balance of power, but it is equally true, if women would arouse from the stupor engendered by inaction, they would hold the balance of influence.

We are arousing, brothers! Have you heard the trump of the Woman's Christian Temperance Union? We are willing to take the monotony of the house or plow if you choose; to be silent when there is no need to speak; but we are not willing to allow the cry of the rising generation for purer air, purer surroundings and purer mental culture go unheard and unanswered, while we have voice to swell the chorus.

We are the mothers, the country's arm of dormant ability. We are dissatisfied—not with our sex, not with our political position, but with our personal inaction during the growth of wrong. If men in their struggle for maintenance and power failed to keep the foot-way clean we feel we should have left our parlors and kitchens and swept the streets, purified the air, drinks and speech of the land, for which we were training our children before we turned them out.

The mutual inertia of centuries which might have debilitated the powers of our progeny, was not our right. Our God-given privilege is to encourage and promulgate purity.

Whether we plow, or cut the grain;
Whether we move with joy or pain,
Sisters, let us henceforth be
Clarion-voiced for purity. S. L. O.

OUR CORNER MAN.

PART II.—WHEREIN THE MAN MAKES A CLEAN BREAST OF IT, EXPOSES HIS STRUGGLES AND TRIUMPHS, AND UNCONSCIOUSLY VINDICATES SOME OLD FRIENDS.

THE convivial meeting described in our last paper, and resulting so happily in practical demonstrations of truth, has induced Our Corner Man to put on his thinking cap again. But the obligations which genuine thought imposes, lie in so many and varying channels, that this time it has sorely puzzled our erratic philosopher in what manner and fashion to set his compass, and on what point to steer. One thing is certain—he has been traveling a great deal of late. But that is a way with him—the man positively can not avoid it.

A few nights ago, instead of wrapping himself in a woolen rug and taking a Pullman sleeper, in response to an invitation from an old Philadelphia friend to come and visit at his, the friend's, new home, the man partook of a late heavy supper, went instantly to bed, and resolved to visit England.

The journey was accomplished in less than three hours. Now, whether the fellow had anything to do with the Mackay-Bennett cable, or whether that marvelous conductor had anything to do with him, is a matter that can be argued out by speculative philosophy with all due deliberation and time. The fact stands—that our man not only accomplished the Atlantic journey, attended as it is with ocean terrors and storm embarrassments, but he managed by some unaccountable means to set himself down in the old university city of Oxford.

Yes, there, sure enough, stood good Madam Clithroe's office, as of old, only a short walk from the Magdalene Bridge and close upon Jesus College. And, within the office, seated with wonted composure, reclined that lady's excellent little husband. In the window was the old sign—

“Madam Clithroe, Practical Phrenologist for the Universities of Oxford

and Cambridge,”—familiar enough.

“Gracious! Mr. Cornerman, how came you here in that garb, and so early, too? Dear, dear me, and we expect some lady visitors at any moment!” It was 9.30 A. M.

But the good woman stopped short in her surprise, and, gazing intently at him for a few moments, burst out laughing. This induced—in fact imposed upon Mr. Clithroe the duty of laughing, too, and right heartily did the little gentleman join in the merriment.

For the first time their visitor's eyes were impelled to travel slowly over his raiment, and then, and not till then, did he discover an appearance put in, in the absence of full attire. To be brief he arrived at the office in his night dress and slippers.

In some confusion, accompanied by unnumbered blushes—for the man is sensitive—he pleaded in extenuation that the sun in England rose about five and a half hours before deeming it expedient to shed his beneficent rays over the American metropolis.

This argument, being at one and the same time scientific and conclusive, though void of the remotest reference to late suppers, seemed to satisfy amply the good Madam, and she accordingly ushered her visitor into the consulting room adjoining, inquiring as they went the reason for his early call.

The man explained that he had been suddenly requested by the American Institute of Phrenology, at New York, to give another account of himself; and, finding that he had either lost or mislaid the chart and phrenological analysis of character which she had vouchsafed him in 1874, and which ever since had proved so prolific of fruitful issues, he just “thought that it might fall within the range of probability” that she still

retained on her books a "copy of said analysis."

"Yes, no doubt I have it. Do you recall the month?"

"I think," said the man, "it was in August. No, it was in September—here it is, No. 116,432 and under folio F., Mr. Dædalus Manysides Cornerman."

"Well!" said the good-natured little lady, looking up with surprise; then throwing herself down into a chair with an expression of decided relief—"if ever I met so extraordinary a man as you! Do you know," she pursued, "that you are just named as you ought to be?"

"I suppose so," was the humble and subdued reply; and the man again glanced at his slippers.

"Well, sir, your first name is suggestion of wings, and I feel certain you must have flown here; your second, you eternally carry about with you; and your third—well I don't know, I was going to say two, but I shouldn't be at all alarmed to find you at six corners at once. But stay,—allow me for a moment."

Here the Madam rose, and, placing her forefinger upon the organ of Continuity on our friend's cranium, exclaimed, "No, it's not quite as I supposed. I see, sir, she continued, folding her arms and looking straight at the man, "that since your last visit here, twelve years ago, you have been faithful to your promise, which declares in a side note on my Register"—pointing to the book—"that you will never again attempt or undertake anything not intended to be rigidly carried through. See, in the copy of analysis, the organ is marked 3, which would indicate small, and were I to examine you now, I should be forced to indite five for Continuity. This number, you are aware, would place the organ as fairly large. Indeed I am glad to see it, sir—glad to see it," repeated the little lady with emphasis.

"You are quite correct, Madam," returned our Corner Man, "and be assured of three things: I have kept my

promise; am glad beyond measure I did so; and that I owe you more than I can ever repay."

"Well, well!" returned his hostess, hastily. "No compliments, please. I suppose you desire a copy of this analysis—is that it?"

"If you please."

"Five shillings, then; I charged you ten for the first, and this will be half that amount," saying which, Madam Clithroe sat herself down to write, commenting upon the entries aloud as she indited each sentence.

"You share four temperaments," she said; "the active, nervous, bilious, sanguine; and please remember that air for you is as necessary as food—plenty of air."

"Your large nostrils denote a full lung capacity, and the dipping nasal wing between, good birth and daring. Your Language has developed since I last saw you, as well as Mirthfulness; so I quite expect you to be guilty of punning before you leave here. Speaking of Language, I presume by this time you are either a great lecturer, writer, or a queen's counsel—which?"

"Yes, Madam, if you must know, I have slightly graduated in the first two; but, as regards the latter—I keep my own counsel."

"Well, well—if I didn't think it. However, as that's a good one, I'll forgive you." Here the man glanced again at his nightdress and slippers, and failing to repress a smile, took in the pegs on the office door, in the hope that an overcoat might possibly hang there and be owned by his host.

"Attend to me, if you please," said Madam, looking up, and pursuing her remarks: "Your Perceptives, I see are large and always have been, particularly Individuality, Order and Form. Color is not so full; you would make a better sculptor than artist—you could chisel better than paint—"

"Pardon me, Madam," returned the man not a little confused, "but I think

there must be a slight mistake ; at chiseling I feel assured I should make the poorest hand in the world, and—"

"Dear me, I don't refer [to cheating people—please understand me."

"Oh, pardon me ; but I have been so accustomed to hear the phrase and suffered from the practice in Chicago that—"

"That you really don't mean what you say," said the little lady laughing.

"To proceed : Human-Nature, Causality and Comparison are all numbered 6 or decidedly large, in you ; so of course you would be a natural phrenologist whether you liked the science or no. Your Human Nature enables you almost to perceive in sleep the motives of a person standing over you. Awake, you instinctively feel, so to speak, or handle people's thoughts without their knowing it. Your Causality it was, that led you to be so ardent a student of John Stuart Mill when I first knew you, and no doubt by this time you have sought out, dug into, and analyzed every known science."

"You are right, Madam, I have been a warm student of science ; further, my eldest little boy is named after the great thinker you refer to."

"It don't at all surprise me," remarked Madam, as she wrote on.

"I see that your Imitation and Constructiveness are both large, so that with other faculties already named, you would have made a prominent actor or successful inventor. As to your Ideality and Sublimity, the latter is so full that I feel bound to place it at six and one-half ; this is a dangerous size, but with Causality so large, you will doubtless be enabled to keep your poetry and ideals in check. Your Parental Love is large ; and—if I might refer to Conjugality?" said Madam, glancing up. But something like a tear that trembled in the man's eye forbade a reference to it.

"As to your friends and enemies, I fear you will make a great many of the latter, if Secretiveness be not more developed. Your Language and Com-

bativeness being large, the one impels you to speak out, and the other to oppose. Your few friends, however, will die by you, and you by them. You will please remember," continued the amiable lady, rising and handing Our Corner Man a new chart and the written analysis, "that I have not referred aloud to one-half your qualifications, nor to any of your numerous sins. I have only indicated and commented upon a few of the prominent organs."

Without revealing his slippers, the man bowed as gracefully as possible, accepted the papers and paid his five shillings.

"And now pray tell me," said his examiner, with a smile which only the lavish heritage of nature could bestow, "what have you been doing with yourself for the past twelve years. But first take a chair please, and don't stand like that!"

The man, with trembling voice and a look of abstraction awakened by his utter hopelessness of attire begged that, before seating himself, his hostess would kindly inquire of her husband if the latter was "just then using his morning-gown." Her eyes filling with merriment, while her face retained a stolidity as grave as a coffin-lid, the excellent woman stepped into the next room and presently appeared with the desired garment.

Not a word of justification for so unwarrantable a request as the one just made escaped Our Corner Man, as he hurriedly placed himself inside the fabric, and with a sigh of relief threw himself into a chair, where he posed like an Ottoman Turk. Then without a scintilla of apprehension he proceeded to relate his adventures. As may readily be imagined these were solemn and sad, joyous and altogether numerous.

But amid the phases of life encountered, the many obligations created, and the gradually augmenting duties to be yet performed, the man assured his hearer, with no common emphasis, of the gratitude he owed three prominent

phrenologists, viz. : Prof. L. N. Fowler, of American and English celebrity, the good lady herself, and Mr. Odell, of London.

"Pray when were you examined by Prof. Fowler?"

"Before I was ten years old, and during one of that gentleman's lecturing tours in Ireland."

"And when, pray, by Mr. Odell?"

"When I was in my twenty-ninth year, and three years later than you had examined me."

"Did you find any difference in the analysis of character, verbally or written, of these three examinations?"

"Not that I remember—in fact, why I came to believe so strongly in Phrenology and Physiognomy was because of the near agreement of the analyses referred to. Of course," continued the man, "my Perceptives were not so prominent at the date, when Mr. Fowler conducted his examination as when I first met you Madam; nor were Language, Casuality, Human-Nature, Comparison and other organs so fully developed; but, Mr. Fowler really foretold the more ample analysis given by you; which fact, to my mind, was conclusive proof of his greatness in the profession."

"What of Mr. Odell?"

"I saw no points of contrast in the examination, save in his method of wording the analysis. Certainly he placed my Continuity at 4, or medium, whereas you gave it 3. This, however,

only proved another leading Phrenological truth—that by exercise an organ may develop."

"You are right, sir, and I am pleased to hear you say"—

* * * * *

"Yah, yah, yum," exclaimed the man, waking up with a start, and driving his knuckles into his eyes as if with a determination of excluding the light.

"Yes," he soliloquized aloud, "there is nothing more beautiful than the sweet reality of truth; and now I am more convinced than ever of the propriety of making public my latest and most utilitarian proverb, viz. : 'If you forget a point of import, impress its bearings on the brain, and retire in your slippers with a heavy meal within.'"

"But you may not after all have hit the truth," we one day ventured to suggest. "If the public should doubt it," returned the philosopher, "they are free to bear the expense of a public examination, and I shall most willingly submit to the ordeal. One condition, however," said the speaker with quiet force; "the examiner must be known, and of acknowledged repute."

"Then your method of retiring to rest as you say is against hygienic law!" "Hygiene to the winds, sir!" roared the man; "what's hygiene in the balance against a nobler truth, combined with the terrors engendered by running from an editor with a club at your heels?"

ST. TOMS.

WONDERFUL TRIPLETS, AGED 70 IN 1858.

IN 1858, when the portraits on the next page were taken and they were seventy years old, we published the following :

"In the portraits before us, several facts should be noted. What firm, strong, substantial, general organizations, indicative of long-lived, healthy ancestry! Three children at one birth capable of becoming thus strong in body and in character, and living to be seventy, with

a fair promise of *fifteen years more*, must have had hardy, healthy parents. To give birth to them at all, shows great vitality, but three such as these, are a wonder.

"The resemblance in their phrenological development is quite as striking as that of their features. The foreheads appear to retreat, though they are quite high. The organs about the brows being

large, give them clearness of mind, practical talent, memory of events and experiences, power to manage business and understand what is going on around them. They should be known for strong common-sense and soundness of judgment. The height of their heads from the eyes upward shows very strong Firmness, Self-reliance and thoroughness, good moral sentiment and strong, religious feeling; while the width of their

length of life we allotted to them fifteen years, or eighty-five years; Mrs. Luddington lived seventeen, Mrs. Grinnell eighteen, and the stronger one, Mrs. Bushnell, twenty-five years, an average of ninety years, or five years in excess of our estimate.

They were born at Goshen, Conn., March 26, 1788, Mrs. Luddington had one child, Mrs. Grinnell four, and Mrs. Bushnell nine. All three spent the



SYBIL HURLBURT LUDDINGTON.
DIED, AGED 87, 1875.

SARAH HURLBURT BUSHNELL.
DIED, AGED 95, 1883.

SUSAN HURLBURT GRINNELL.
DIED, AGED 88, 1876.

heads shows energy, economy, ingenuity, Order and general executiveness.

“The two figures at our right hand appear to have a little more vital and motive power, while the left hand one shows nervousness and excitability. But behold those large cheek-bones, those strong and well-set chins, those firm and well-defined mouths—especially the one in the center—behold also, the fulness of the cheeks across the region of the lower jaw—and then find a parallel of their age in any one family, if possible.”

In our prophecy as to their probable

most of their married lives on farms in Pennsylvania, and at no great distance from each other. Until very old their personal resemblance was very striking. Mrs. Grinnell and Mrs. Bushnell especially being so much alike that friends would often mistake one for the other. They were always known for their active, industrious habits---this fact itself having much to do with their health and longevity. When long past seventy their minds were sound, and they showed much interest in general affairs and the routine of the household.

THE RECIPROCAL INFLUENCE OF THE MIND AND BODY.—NO. 2.

THE mind acts upon the body through its threefold states of intellect, sensibilities and will. The intellect may excite sensations, or it may suspend them altogether. The celebrated John Hunter, says: "I am confident that I can fix my attention to any part until I have a sensation in that part." I am not yet old enough to wear glasses, but think of the time when I may be; and, at this moment, have a sensation on the nose where the spectacles would naturally rest. The influence of the intellect upon sensation will account for the visions of Martin Luther. On one occasion, Luther was engaged in prayer in his chamber; and, while he was contemplating the sufferings and death of Christ, there suddenly appeared on the wall a vision of Christ, with his wounds, looking down upon him. As Christ appears to us only in his word, Luther attributed the vision to a juggling of the devil. Science now explains that which was mysterious to the great German reformer. There are some persons who imagine they see all that they think, and this is a very dangerous condition. Their imaginations become, to them, revelations, and they are sometimes substituted for even the Bible itself. They are simply examples of automatic cerebral action excited by ideas vividly present in the mind.

The great influence of attention upon the sensory ganglia is shown in the ability to recall a visual impression after a long interval of time. Sir Isaac Newton says that he once looked at the sun for a short time in a mirror. He then went into a dark room, and, by thought, could have the spectrum return. By intruding his fancy upon them he could have the light and colors as vivid as when he had just looked at the sun. Finally he had to shut himself up in a dark room to divert his imagination from the sun; for if he thought of him, the image would return, although he was in the dark. Erasmus once visited Sir Thomas

Moore, who was a firm believer in the real presence in the Lord's Supper, Moore tried to convert his friend to this belief and assured him that he would be convinced of its truth by unquestionable evidence. Erasmus on leaving the house of Moore borrowed his pony and, being well-pleased with it, did not return it; but sent the following lines:

"Should you tire walking
This hot summer tide,
Believe your staff's Dobbin
And straightway you'll ride."

It is an axiom in science, that every part of the body sympathizes with the mind, for whatever affects the mind affects also the body. Sir Francis D'Assisi, one day when exhausted by fasting and prayer, imagined that God ordered him to open the Bible that he might therein learn his will. The book was opened three times and every time at a description of Christ's suffering. The pious monk regarded this as a sign that he should realize the Saviour's sufferings more vividly than he ever had before. He carried this so far that he suffered pain in his hands and feet, which resulted in inflammation, and finally in ulceration.

Emotion and will produce a wonderful influence upon the corporeal organization. A person may be very hungry, and receive intelligence which renders him unable to eat at all. A man may have an important speech to prepare which causes fasting some time before its delivery. An old woman, who was caught one night stealing fuel, said to the man who caught her, "Heaven grant that you may never know again the blessing of being warm." The man complained of cold the next day, which got worse and worse until he died. Science fully recognizes the influence of grief in blanching the hair. The dark hair of the beautiful queen of France became white in one night. Deadly fear outwent time and blanched at once her

hair. The human will is the highest element of the mind. It is in the image of God, and free, because God is free. The influence of the will upon the body is very great, because it influences all the other elements of the mind, and they also influence the body. The proper cultivation of the human will is the most important thing in life, both to the body and to the spirit.

That the influence of the mind upon the body in the cure of disease is very

great can not at all be questioned. It is evident that psychopathy, as well as physical remedies, should be employed in the cure of disease. A little more attention to science will allay the wild enthusiasm manifested in some parts of the country with regard to faith cure establishments. The medical profession also would be more successful if greater attention was given to the study of the mind and its relation to the body.

J. W. LOWBER, PH. D.

TRUTHFULNESS.

I DEEM it a pleasure to meet a perfectly truthful person. That there are some really truthful people in the world I fully believe; and if the ancient cynic Diogenes were living in the electric light of the present day, even he might be made to rejoice in the finding of an honest man, and truthful.

By a truthful person I do not mean one of those exceedingly unpleasant beings who boast that they always aim to speak exactly what they think and then because of their many mean thoughts, speedily find a falling off among their friends; nor yet the simple-minded person who, without discretion or sense, with open-mouthed wonder, gives utterance to whatsoever passes within his innocent brain. But among common, intelligent people how many are there that come up to the standard of perfect truth?

I have beloved friends who, if it were even so much as hinted that they were considered untruthful in any degree, would become highly indignant and think a gross insult had been done them. But, hiding behind the pen I would venture to give a few delicate hints to them and to myself. For, who among us can cast the first stone, claiming to be immaculate in this matter?

A temptation to slightly exaggerate, or misrepresent is frequently yielded to;

or sometimes in a company an unfavorable something is said that we know to be untrue, perhaps only a small matter apparently, a slight prevarication of truth, and it passes uncorrected; our silence has given assent, and we too have become untruthful.

And even so great a wrong as a hurtful slander has been conveyed in so slight a way as the elevating of an eye-brow, a look, a sardonic smile. I am not meaning those persons who habitually tell falsehoods and prevaricate, taking whatever may appear to be expedient for the right; but those who at heart love truth, yet sometimes permit themselves to carelessly stray beyond the path of rectitude; and not heeding the fact that a thing oft indulged in, whether good or bad, soon fastens itself upon us as a habit. Habits of this sort affect not only the eternal welfare of the individual himself, but their influence is felt to make lasting impressions upon others. I was first made to think deeply of the great beauty of truthfulness by being associated for a time with a person of exceptionable integrity of character. To always speak the clear truth had become with him a fixed habit, and the influences of so lovely a habit soon made itself felt, inspiring others with feelings of trust and reliance in what he said and did; and creating in them a desire to go and do likewise. No one need be unkind in the maintenance

of truth ; for truthfulness and kindness go hand in hand ; and he who speaks truly, simply because he loves truth and right, will also speak with kindness of spirit. Let us cultivate the virtue of being truthful.

S. M. B.

TO MOTHER ON HER 70th BIRTHDAY.

In childhood's days I wond'ring read
The words an artless maiden said :
" At home, at sea, or passed to heaven,
Our household band still numbers seven."
But now my heart full comprehends
The truth that with the quaint tale blends,
As backward turn time's leaves—I see
A many change, for mine and me.

* * * *

With kindly hands and thrifty care
Our mother makes our home-life fair.
Her lively urchins win a smile,
By play so free from feint or guile,
And in the medley of our fun
Our father joins when sermon's done.
The morn is greeted with a psalm,
And prayer unites at even's calm.

One goes beyond the borderland ;
Another joins the home-nest band ;
And stature comes to all with years
And learning's cares, and life's strange fears.
Another hears the mystic call ;
Childhood becomes " the past " to all.
The memories dear are stored away,
But earnest work bars out the play.
Then one seeks out another home.
They bid adieu as others roam,

One to the east beside the sea,
One to the west on prairie lea ;
One to the south where palmtrees wave,
One more is shrined in bloom-decked grave ;
With angels passed she wing-and-wing
Beyond the skies their songs to sing.

And those she left see threads of grey
About their temples warning stray,
And strength of youth is waning fast ;
They note the length'ning shadows cast
As life's strange sun toward the west
Declines and gives sweet thoughts of rest:
White-winged *Columba Animae*
Doth willing bear their griefs away.

* * *

And now to thee, O mother, mine,
I say,—believe thy household shrine
(Whose vacant chairs but mock thine eyes)
In counterpart beyond the skies—
Will be thine own, and thou, and he—
Who walketh by thy side will see
The weary feet of those who roam
Come safe to rest in that fair home.
Apart—" from home," by earth's decree,
From parting—" home " for aye to be.

MRS. A. ELMORE.

OCCASIONAL NOTES.

MATHEMATICALLY ONE-SIDED.

SOME fifty years ago or so Messrs. Lea & Blanchard, publishers in Philadelphia at that time, were about to bring out an American edition of Young's Trigonometry, and deeming it desirable to have an American editor, applied to the leading mathematicians of the country for advice ; and they all united in recommending one J. D. Williams, of New York, a journeyman bricklayer. I stereotyped the book for them, conse-

quently saw a good deal of Williams, who, as a mathematician, was the peer of anyone in the country, but who, outside of that one subject, was a man far below mediocrity. By trade he was a mason, but he was not competent to do the simplest piece of mason-work. I found this out by employing him to rebuild a very simple furnace and having afterward to employ a competent person to do the work over after him. This goes

to show, however, that one faculty may be cultivated at the expense of all the others.

OF OBSERVATION.

Army officers, who have been stationed on the great Western plains, have told us in their reports, of the wonderful skill of the professed *Indian trailer*. I quote the following from one of these reports: "The most extraordinary skill that is exhibited in this part of the country, either by the white man or the red native is in the practice of trailing. Here it may be accounted an art as much as music, painting or sculpture in the East. The Indian trapper that is a shrewd trailer is a man of close observation, quick perception and prompt action. I have ridden several hundred miles with an experienced guide and trailer, whom I interrogated upon many points in the practice of his art. Nearly all the tracks I saw, either old or new, as a novice in the art, I questioned him about. We crossed the track of an Indian pony. My guide followed the track a few miles and then said: 'It is a stray black horse, with a long bushy tail, nearly starved to death; has a split

hoof of the left fore-foot and goes very lame, and he passed here early this morning.' Astonished and incredulous I asked him his reasons for asserting these particulars so positively from only observing the tracks of the animal, when he replied: 'It was a stray horse because it did not go in a straight line; his tail was long, for he dragged it over the snow; in brushing against a bush he left some of his hair, which shows its color. He was hungry, for in going along he has nipped at those high, dry weeds, which horses seldom eat unless nearly starved. The fissure of the left forefoot, left also its track and the depth of the indentation shows the degree of his lameness; and his tracks show he was here this morning when the snow was hard with frost.' Numerous other instances are related of the wonderful skill of these trailers in the habit of observation, which will appear the more astonishing the less one has cultivated the faculties, which may very properly be regarded as some of the most useful to be cultivated in the schoolroom.

J. A. R.

HEREDITY.

IN a public exhibition of New York City is the material representation of a criminal, pictured first in the act of stealing, then in the act of murder, and finally on the gallows taking the farewell look of the world and his mother. Never in all my life was the law of heredity so deeply impressed upon my mind. And as I gazed at this picture taken from real life I could not but think that God had fenced in the violent heart and placed about the whole race a law of tremendous potency. Here was the counterfeit presentment of two natures—a mother and a son. Upon the face of the son was the expression which a skilful student could see on the face of the mother, and in the whole physiological make-up of

this family there was evident weakness overpowered by an inefficient moral nature, strong passions and appetites. This story has countless applications in the world. Our virtues and our sins recur in the lives of our progeny. By our conduct we lift ourselves into joy or sink into misery. The restless heart writes its struggles on the face, and we read the history of a criminal as easily by his eye as we tell a lame man by his halt. In Ohio, on the streets of Ashtabula, can be seen a man in good health, who never tasted a drop of liquor, reeling along as he journeys to and from his place of business. A cripple, whose very appearance would repel one, and yet call forth our sympathy, who sells matches and

other merchandise to support himself, walks the streets of Cincinnati a sad illustration of the law of heredity. Recently, while in Canton, N. J., I was struck with the constitutional obstinacy of a child. I learned that the whole family was one of like disposition as far back as two generations. This law obtains in every department of life. It sits enthroned as the arbiter of our destiny, and, in the language of Bulwer Lytton, it can be compared to nature herself, busy continually upon a pale and shadowy woof. Into our life is woven many ancestral characteristics, and human progress and a pre-eminent civilization are assured because of this law. As rivers emptying their waters into the oceans materially change and modify the color and quality, so the good and the bad in the individual change the physical, intellectual and spiritual condition of the race. It was once held as a theory that individual life is isolated, and that there could be no law by which genius as well as other human characteristics could be transmitted; but the very forgotten dead, like Hamlet's ghost, stalk the streets reminding us of that thought of A. H. Clough:

“Young children gather as their own
The harvest which the dead had sown;
The dead, forgotten and unknown.”

The law of heredity makes the very sepulchers burst their cerements and open their marble jaws, yielding to us the vices and sins which we would have gladly buried in eternal oblivion.

The application of this law is seen in the physical constitution of man. The tottering frame, the palsied organism, the internal deformities and the variety of ills which flesh is heir to, are in many cases traceable to wrong action. The effect of disobedience to every law of life is seen in the history of every generation. Genius, intellectual and moral superiority, blossom from families of strong, mental and moral constitution. R. W. Emerson and H. W. Beecher were the flowers of a family-plant which,

in the centuries, received a proper development along the line of natural endowment. As in the vegetable so in the animal, good fruit can only come from healthy stock. The terrible disease generally known as consumption, but particularly as *phthisis*, is traceable to an exposure of a strong or weak organism. Hence, thousands of innocent children grow up to be men and women with the phantom skeletons of their ancestors staring them in the face, and the disease itself, like a cankerous worm, feeding upon their very vitality. And so it is with venereal diseases which sap the very fountains of life polluting the races for many generations. The indirect influence of bad habits upon the secure condition and growth of the body is seen in the weak specimens of children mothers nurse into a brief existence. Drunkenness has not only the effect to corrupt the blood and brutalize the man himself, but it has also been known to deform children. Sensuality has wrecked as many homes as any other vicious habit, and intemperance, in every sense of the word, has been the downfall of national as well as individual life. The thought that intermarriage will obviate many blunders of youth and eradicate many an evil is but the dream of an unwise man. And how often has it been found that this argument has been, when carried into effect, the means of transporting the evil beyond the circumference of expectation, multiplying instead of remedying it.

The further application of this law in the realm of spirit is of equal importance. We are not only the portraits of our parents in a physical sense, having their peculiarity of feature, weight and height, differing in some things, but we resemble them in mental as well as moral characteristics. Our talk and laugh are identical; modes of work, habit of eating and general conduct of life are similar. Our temper of mind is inherited as well as fine perceptive powers, good memories, excellent reasoning faculties,

A weak and strong will are hereditary. Into this nineteenth century have come the vices of all the by-gone generations, and the work of reform is tediously slow because we can not arrive at

the best plan of elevating humanity. Realizing the power of this law of heredity we shall not solve the problem of universal civilization until we obey the laws of life.

J. C. F. GRUMBINE.

LEADING ELEMENTS IN WASHINGTON SOCIETY.

THERE are few subjects about which so much has been written as the "Society" of the National Capital. The daily and the weekly papers, and the monthly magazines, great and small, have been for years, and are still, harping on this great topic—at least made great by the attention paid to it. We suppose that what all these writers consider the "society" of a place must be those few fortunate or unfortunate individuals who have the time and means to attend all the "high-toned" receptions and lead the most unnatural lives possible. To this class Washington, in the winter, is what the noted watering places are in the summer, a matrimonial market; a place where the young miss makes her entry into "society," and where she expects to meet her partner for life; where there is one round of receptions and entertainments, with late hours and nervous excitement. The greater portion of this class are itinerant, and many of them never see the city a second winter. Yet, strange to say, they seem to constitute the "society" of the Capital City of this great nation.

This is on the surface. Down deeper is the real and true society of the place, which will compare favorably with the society of any other city in the land. Not so much wealth as in the great business centers of the country, for there is not the opportunity for such fortunes, but the culture is here; I will not say superior, but it is at least quite equal to the best in the land. And when the outside world begins to understand the peculiar formation of the society of the Capital they will readily understand why this should be.

The clerical force forms an important element in the general society of the city, and well represents the principle of local or State representation. Formerly the employes of the government were from any State; no special pains were taken to have the appointments equally divided; but in later years the common-sense plan was adopted of having the clerkships, under the general government, regulated by the representation; the greater the population of a State the greater her representation to Congress, and the greater her number of Congressmen the greater her proportion of clerks.

The outside world hears all sorts of stories about the clerks, male and female. Of course the ill report travels faster and is generally better received than the good report. Mr. Peck, of *Peck's Sun*, came to Washington a few years ago, and while here he wrote some letters to his paper. He admitted that he came with a rather biased feeling, especially in regard to the ladies of the Treasury. He had heard all sorts of bad things about them. A visit to the great building, where so many are employed, changed his mind, and I do not think the ladies of the Treasury, and of the departments generally, ever received a more just and favorable compliment than they received from him. He met them face to face, saw what manner of women they were; then he did them justice, simple justice. He had been led to depreciate them, but on seeing them at their desks he praised them in terms that were positive and bore no uncertain sound. With the women so with the men. Of course out of the thousands here employed there must be a few

"dudes" and "bummers." It would be most strange if it were not so, for out of every thousand men there are sure to be a certain percentage of weak and ill-balanced ones. But there is one thing about it, even if a clerk be a "dude," if he attends to his duties his "dudeness" will not, at least officially, count against him. We know that in all society there is apt to be the young man who is foolish in the line of dress, but with advancing years generally comes a sobering-up and a feeling of shame at being made the butt of society at large; the sensible qualities in his nature come more and more to the front and he comes down to a plainer, neater dress.

I speak of the clerks because they form so large a percentage of the general society; and while speaking of them I would go a little further and let the citizen at home know a little more about his representatives here. One might say the city is one large school. Here are two or three large institutions of learning—law and medicine—that hold a high reputation all over the country. These schools accommodate themselves to the hours of the clerk. During the day he must be at work. His evenings are generally his own. (Just at present they are not, as in some of the large departments they are working night as well as day.)

Whatever benefits the clerk, whatever raises his standard raises his worth to the Government. He does not get any more pay, so the more worldly man may say, "Why do it?" The intellect of the man replies, "My mind craves it. I must satisfy the intellect." The outside man may ask, "Wherein the Government profits?" A good illustration is in the searching of the medical records for pension cases. These men work for a small salary; for such a salary as they receive you could hardly expect to obtain a man skilful in anatomy and physiology, as skilful as the average doctors of the land. It would be hardly reasonable to advertise for men familiar with anatomy and phy-

siology to work for their small pay. Yet in a hundred men on such work you will find twenty-five or thirty medical students, to say nothing of students of law.

A man is given a case to search. He must cover the demand. He pours over old records, book after book. Finally he comes to a statement of the case. It is in the technical language of the doctor who treated the case and is all Greek to him. He knows not whether he has obtained the required information or not. He has not studied medicine, but some of his fellow clerks have, so he goes to them for information. The medical student freely imparts his knowledge and gives him the benefit of his extra nights' labor and toil to master the medical knowledge of the age.

When the outside world hear all the idle stories of the clerks, male and female, here in Washington, let them bear these facts in mind, and I think they will have a higher opinion than ever before of the citizens who here do the nation's work. Could they see them at their desks by day and at their studies by night (women as well as men), I do not think they would find fault with them, but on the contrary estimate them highly. Apart from these are special students in every branch of knowledge known to man. Washington is one great intellectual center. The "society," known only to the outside world, knows as little of these students whom it meets daily on the streets as it does of the North pole.

Then there is the old society, the people who are in business here; they have their quiet places, and know or care little of the hotel "society," which comes and goes with Congress. They are much like the quiet and solid people of any other place. They like to have the winter crowd here because it makes business better, but apart from this they have little thought for it; not that they have any special dislike for it; it is simply outside of their sphere.

Besides all this, there is another all-important branch, which we may term the "official," or the society formed of the higher officials of the army and navy. At the National Capital, there may be said to be no *plutocracy*. The merely monied men are not sufficiently in force here to form a very powerful factor of exclusive society. In its place we have the army and navy. Wealth is not barred out, nor rudely set aside. "Other things being equal," wealth is no more despised here than elsewhere, but it is not in sufficient force to rule the day. In other cities, wealth, especially the older wealthy families, is powerful from the length of time people have held their position. The few rich, even in *plutocratic* circles, are not people of any special influence in society. It is the long holding of a position, being well-known, that gives social power. At the Capital there are few monied interests; therefore, the wealth here is insignificant compared with the large business centers of the country. The Congressional influence is socially, in some instances, very powerful. But the trouble with the greater part of this element is that it is all the while undergoing such changes that there is not stability enough about it.

The headquarters of the army and navy is naturally here. The officials may be changed, but still the great central organization remains. It may be even reduced to a skeleton, but like a skeleton regiment it remains an organized power. So, under the circumstances, it is no wonder that the army and navy form a strong social element, probably the most potent at the Capital. Recently, however, a sort of compromise or reforming of the lines has taken place. A new organization known as the "Cosmos Club" has been formed.

Some very popular men, and I may say families, are at the head of it. It is not exclusive as to class. The army and navy are well represented in it, but do not form the whole society. The object of the organization seems to be to unite

the interests of all, civilians as well as officials. It has accumulated sufficient money to make for itself a very stately yet modest home. It has started under most auspicious circumstances, and bids fair to be a very important factor in the society of Washington. Its membership is not even confined to this city, but is scattered over the whole country and perhaps over the world. It is now in the hands of good men, and if it is continued under wise management it bids fair to have a good influence upon Washington and do more to unite the different interests than any social organization yet attempted. Of course such an organization will meet with some opposition; but the tendency of the age seems to be in this direction. A social demand is created; like the country fair it brings people together, but unlike the country fair it is exclusive; it is not for the mass but for the kindred spirits; and so long as we must have something to regulate or assist society, it would seem that an organization like this was at least not very objectionable.

One can not in a short article comment *ad libitum* and take up all the social branches of a large or even small city; still, in passing, one might refer to the Masonic branch which in Washington holds quite a social rank. Here resides the ranking Mason of the world, and I may even go further and say, the mason of all masons, General Albert Pike. Yet aside from him are many others, who in any community would be regarded as "illustrious." The Masonic element is strong in the district and naturally holds a strong social position. Indeed, all the popular "fraternities" are well represented here, and when we come to consider the elements congregated from all parts of the Union, and from even many parts of the world, it is quite natural that such a state of society should exist.

The Hebrew element is also large here; sober, patriotic, business-like and philosophical, it pursues the even tenor of its way with a quiet independence that

seems to say, "we are here to stay." The world has advanced. We no longer dread the proscription of the past. We have done our part toward showing the world that "it is better to love than to hate;" it is better to agree to disagree and to dwell in "peace and harmony" rather than follow the examples of the past and attempt to force your brother to be like yourself. The experience of the world has proved this to be impractical.

In some future day mankind may agree theologically, but that day is far off; and until it does come we had better exercise charity toward all men; this exercise of charity on our part will go greatly toward the solution of the problem of the ideal utopia. When the reader picks up a daily and reads all about the "Society" news here, let him bear in mind that what is thus designated is not all the society of Washington; it is only a part, and a very superficial part at that. Go deeper and you find a more natural condition—a society that any city might be proud of; substantial, quiet and refined.

I. P. NOYES.

Washington, D. C.

WORLDLY PRIDE.

One day I heard a bishop preach
What every bishop's bound to teach—

The sin of worldly pride;
That, dwelling in this world of lies,
We ought to shun its vanities—
And much good talk beside.

Next day I saw the bishop ride,
A liv'ried coachman at his side,
A tiger up behind;
And, as I watched the equipage,
The bishop's pious verbiage
Somewhat confused my mind.

I saw the bishop's carriage pass
Another of its own proud class,
Wherein a duchess sat.
Mark you with what a lowly bow
His lordship lifts from off his brow
His sacerdotal hat!

At the next corner, down the street,
The bishop's carriage chanced to meet
A wretched garbage cart;

His lordship's horse, through fear or pride,
From the low object quickly shied,
Making the prelate start.

How testily, in language tart,
The barefoot owner of the cart
The bishop now doth chide,
And tells her with unwonted heat,
That she should not obstruct the street
Wherein her betters ride.

Then, leaning back with virtuous air,
He leaves the poor girl standing there,
Uncertain where to walk.
And thus the pious prelate's ride
Taught me the sin of worldly pride
Far better than his talk.

BISHOP COXE.

HOW CHARACTER TELLS.—During the recent session of the New York Conference at Kingston, N. Y., Bishop Fowler, in his Easter sermon, said: "After all, there is nothing in this world but *character*," and this great truth he illustrated by a graphic picture of the days of the war, when Lee and his generals met on one of the streets of Chambersburg, Pa., and after consultation decided to march to Gettysburg instead of Harrisburg. A farmer's boy heard the conversation from a second-story window, and then following the column, to see that they took the road to Gettysburg, he hastened to a telegraph office and telegraphed to Governor Curtin, saying that Lee had gone to Gettysburg. Curtin sent for the boy, who was taken to him by a special engine, at the rate of ninety-five miles an hour. As they stood around him, the Governor said:

"I would give my right hand to know that this lad tells the truth."

A corporal at headquarters knew the boy, and said: "Governor Curtin, I know that boy. I lived in the same neighborhood, and I know it is absolutely impossible for him to lie! There is not a drop of false blood in his veins!"

In five minutes the news went to headquarters, and fifteen minutes from that time the troops were pushing on toward Gettysburg.—*Christian Advocate*.



HEALTH PAPERS—NO. 4.

“DO you then claim that, contrary to the teachings of observation and experience, sickness never is, and never can be cured by the use of drugs?” Not at all. To do so is not essential to the defense of our ideas. Drug medication is, as a natural sequence, followed by results varying from apparently very good to manifestly very bad. Could the medical attendant, with unerring certainty, fix the exact point between these extremes at which his patient will be landed, drug taking and drug giving would be much less perilous? Who dares to say he can do this? Who? Every physician knows but too well, that his prescriptions are liable to disappoint him. Undesirable results, quite contrary to his designs and wishes, not unfrequently follow their administration.

The retrospect of his life-work is marred by the memory of much that he would gladly forget, much that he would rejoice to undo, if it were possible. Take a single illustration. The opium habit has subjected, to an enslaving and degrading appetite an army of wretched victims. This army is constantly recruiting its forces from the sick room. No one yields to its insatiable cravings with a clear conception of the living death he is ensuring to himself. Chloral, bromide and the whole list of sedative drugs are doing their part in

this fearful work. Thousands—tens of thousands—trace in the clearest lines their decline and utter ruin to the time when, by professional advice or otherwise, they were induced to use narcotic drugs to relieve pain by destroying the natural sensibility of nerves given us as a security against the violation of physical laws. Very many of the popular tonics, tinctures, bitters, sirups and extracts are an efficient help in the same direction. If, sometimes, they seem to tone up an enfeebled stomach and promote digestion, this is a small compensation for the abject enslavement to the drug, for the burning thirst for alcohol which, thus implanted, entails upon so many victims a life of unutterable wretchedness and a death without hope of better things beyond. The most vivid imagination can not paint this picture in colors too dark or too deep. Morphia, arsenic, strychnia, veratrum, chloral, phosphorus, camphor, belladonna, quinia and a long array of other drugs are scattering their course with nervous disorders whose name is “Legion.” May it not be well to pause and consider whether the possible good is a sufficient offset to the positive evil following such a practice? We shall see hereafter that drugging is both unnecessary and unwise; that if people get well while using drugs, they can much better get well

without their use. Some may think the proof is not sufficient. Let it be so. They, not we, are responsible for their opinions and for the consequences of confiding in them.

It is worthy of a thought that, even in cases where no manifest evil follows, vital functions may be impaired, vital force diminished and a decline of health inaugurated to be sooner or later developed in the form of active disease erroneously referred to causes which otherwise might have proved imperative, or comparatively harmless.

The evils caused by this class of drugs, though as much more noticeable as the drugs are more deadly, may not in the aggregate be worse than those following in the wake of the milder, which are therefore considered safer ones. In all civilized lands people abound who think it necessary to medicate for every trifling ailment. Such persons are, or think they are, constantly ill. If drugs were really curative they, above all others, ought to enjoy the best health and reach the greatest longevity. Every careful observer knows that such is not the case. The evils of medication keep pace with its prevalence. The masses confide in the skill and the judgment of their professional advisers, many of whom cling to old ideas and old methods because they have been taught to do so. The thought of adopting a practice in full harmony with a sound philosophy of life and health finds no lodgment in their minds. Entangled in the meshes of old ideas they conclude the evils, of which they can not fail to be cognizant, are the fruits of unskilful practice rather than of the essential nature of the agents employed and the manner of their use.

That a full dose of their reputed curatives in many cases is fatal to a person in health they very well know; that the same doze given in sickness could prove equally fatal they can not deny. Much or little disturbs vital action in a degree corresponding to its quantity when taken in health.

Who can say the same is less true in sickness? Is it reasonable to suppose that, when the results of taking the larger quantity are the same, a smaller portion will prove injurious in health but salutary in sickness?

Is the penalty of violating a natural law suspended for our benefit merely because we chose to violate other natural laws? If the cabalistic prescription of a scientific practitioner makes any one sick the just inference is that some physical law is violated in taking it. Sickness in any form is but disturbance in the vital economy resulting from violated law.

Laws are more the less binding, because of such disturbance, whether caused by arsenic or aconite, belladonna or bromine, cocculus or colchicum, digitalis or damiana, fool's parsley or foxglove, gamboge or gelsemium, hellebore or hyoscyamus, indigo or iodine, jalap or juglans, kalmia or kousso, lead or lobelia, monkshood or morphia, nicotine or nux-vomica, opium or oxalic acid, prussic acid or pulsatilla, quinine or quicksilver, rhubarb or ratsbane, tartar-emetic or tobacco, urtica or ustilago, valerian or veratrum, wolfsbane or woorari, xanthochymus or xylote, yew or yellow wash, zinc or zizyphus or any other agent finding a place and an honorable name in the most approved *harmacopœa*. J. S. GALLOWAY, M. D.

SECOND-HAND BOOKS AND INFECTIOUS DISEASES.—In the Third Biennial Report of the Health Board of the State of Iowa for 1885, Mr. H. H. Clark reports, as the result of an inquiry made among about four hundred physicians, as to the occurrence of the communication of contagious disease by second-hand school-books, that no case of such conveyance has been found, the nearest thing to it being a statement from Dr. Christian, of Wyandotte, Mich., of a case of scarlet-fever communicated from one person to another through the medium of a novel.

EMERGENCIES.

The hunter, stumbling, headlong fell !
A smothered shriek ran through the dell.

No human hand to help was there,
But piteous barkings filled the air.

[See page 318.]

EMERGENCY is a wider word than accident. Peril there may be without disaster, alarm without mishap. Next to absence of body, presence of mind is desirable in danger. With a crowded street, a frightened horse and a drunken driver, you soon have work for the ambulance-surgeon or the coroner. A panic-stricken audience in a place of amusement furnishes materials for a tragedy ; but a burst of music from the orchestra, or one loud, hearty laugh, at the critical instant, may quench the frenzy as quickly as water quenches fire.

Fear is the first foe we meet ; fear, "that makes the seated heart knock at the ribs" and the "two eyes like stars start from their spheres and each particular hair to stand on end." On the other hand, as Plautus says, "Courage in danger is half the battle."

But fear is born of ignorance, and finds its antidote in *knowledge*. The wise man often asks himself, "What should I do in such an emergency?" He anticipates in thought what he may meet any hour in reality. He is forewarned and so forearmed. A Charles-town fireman had a little daughter who attended a large city school. He told her to sit quietly in her seat and not rush into a crowd if there should happen to be an alarm of fire in the building. Just such an emergency arose and she alone remained in her seat, serene amid the panic. On being asked, after the peril was past, the secret of her courage, she told how her father had prepared her for it. Daniel Webster gained a case by preparing a timid, nervous witness to meet the opposing council, Rufus Choate. He told him of his personal appearance, voice, gestures and menacing attitude, but also told him not to be at all afraid, or take the least notice of his strange ways. He obeyed. He calm-

ly answered questions ; baffled the belligerent lawyer by his self-possession, and, holding the key of the situation, gained for Webster the verdict. Everyone, young and old, should be taught what to do in danger. "First aid to the injured" is very important, but the study of emergencies is even more imperative. It is humane to care for the victims of an accident, but it is a grander thing to avert the calamity.

On a railroad near Boston two trains were to meet at a certain switch. One had the right of way ; the second must take the siding and wait. The switchman had hardly opened the turn-out, when he saw the express coming at full speed in the opposite direction. Technically, he had no right to disobey instructions, but he had a sober, level head, and saw, in a flash, that if that switch was left open the accommodation train would be but half-way on the turn out when the express would telescope its very center ! There was an emergency. A hundred lives, perhaps, were hanging on the decision of the moment. Obey or disobey ? He was a common Irishman—no, he was an uncommon one. He never had read in Carlyle, that, "in necessity we are FREE," but he acted as if he had. He shifted the switch ! He thereby shifted the responsibility. There was now one straight line, and on that one track two trains were approaching in opposite directions. A minute remained. Both engines were reversed. The collision was inevitable, but the engines and baggage cars took its force. A broken leg and perhaps \$5,000 for repairs of the engines were all the loss the road incurred. What do you think they did with Pat ? Turned him out for disobedience of orders ? Not at all. They told him that he was to have the position as

long as he lived. He was to have, in addition to his wages, an annual gift of a *thousand dollars!* This after all was but a commonsense view of the matter.

Knowledge fortifies against fear. Sagacity or good judgment is even more valuable. That is what Pat inherited, or had cultivated. It enabled him with a glance to estimate the distance of each

smell and the lively touch. It is the interpreter of all riddles, the surmounter of all obstacles, useful at all times, in all places. Talent is power and tact is skill; talent is wealth, but tact is ready money; talent knows what to do, but tact knows how to do it. For all the practical purposes of life tact carries it against talent ten to one."



THE HUNTER'S FALL.

train from the switch, the relative speed of each, the time at which the slower train would reach the turn-out, and to weigh the comparative results of one disaster with that of another. Tact is more than a sixth sense. It is the life of all the senses combined, "the open eye, the quick ear, the judging taste, the keen

Why prepare for emergencies?—Because life was never so perilous as now. As civilization becomes more complex and elaborate, danger to life increases. Not only has the race become numerically large but more and more migratory. The perils of travel by land and sea, from elemental and from accidental

causes, from disease and violence, are increasing as the tide of migration deepens and widens.

As knowledge increases, destructive agencies are multiplied. Deadly poisons are cheap, concentrated, portable and accessible to all. They are given with malignant intent, or taken with suicidal. Carelessness in pharmacy, and negligence in nursing result in frequent deaths, where no timely help is had.

This, too, is an age of machinery. Men are mutilated in every way, as the reports of accident insurance companies show. New explosives, like dynamite, and new motive powers like electricity, are fresh sources of danger to life and limb. Again, as civil life develops at the expense of rural, and millions are massed in centers, like London and New York, many of them crowded into tenement houses, there are perils peculiar to such conditions that need not now be enumerated.

The haste with which everything is to be done is another fruitful cause of accidents. "We are born in a hurry, we live in a hurry, we die in a hurry and are driven to Greenwood on a trot." Again and again, boys and men are crushed between a ferry boat and the drop because they wish to save a few seconds of time. So at railway crossings, on street cars and elsewhere. This hurry and worry are but the expression of national nervousness. Insanity is said to be the price we pay for modern civilization. Racial tendencies, climatic and electric influences, the stimulus of individual liberty and political ambitions, the excitement of our speculative business life, the forcing processes of education, the repressive conventionalities of an artificial society that stifle in young and old much that is normal and healthful, unphysiological food, dress and amusements—all these are some of the sources of neurasthenia. While insanity is on the increase, the borderland of mental instability is widening every year, beginning with insomnia and neuralgia, and ending

with epilepsy or madness. It is not an appetizing fact to know that conductors of railway trains, or commanders of steamers on river and ocean, are in some cases victims of the alcoholic trance, really somnambulists, unconscious of their acts. During the summer of 1886 four different victims of this disease started in different ships for Europe, and woke at sea or in Liverpool to find themselves far from home, they knew not how or why. Is not this a clue to some unexplained suicides? May it not also have a startling suggestiveness in the study of casualties?

Preparatory Studies.—Anatomy and physiology are indispensable to an intelligent understanding of the matter before us. Some knowledge of hygiene, sanitary science and chemistry, will aid the students in treating accidents and give him boldness in emergencies. At the same time, it is true that "a little knowledge is a dangerous thing," without common sense. The first gate of Busyrane bore the inscription "Be bold," the second, "Be bold, be bold and evermore be bold," and the third wisely added "Be not too bold!" Competent medical or surgical assistance should always be summoned at the earliest moment when the case appears serious.

E. P. THWING M.D.

TEA AND COFFEE TO CHILDREN.—Against the practice of giving tea and coffee to children we can not speak too strongly. Childhood is the period when the nervous activity is at its greatest. Reflex action, co-ordination of muscles, and the special senses are all under a special course of training. The nervous system is pushed to its utmost capacity. In little people nothing but harm can come from the use of such cerebral stimulants as tea and coffee. Let physicians and teachers be aggressive in its prohibition. Let them educate the families with whom they come in contact that such practice is evil.

COLIC.

UNDER the term *enteralgia*, or colic, are grouped those morbid conditions of the intestines that render the intestinal nerves very irritable, and are indicated by sharp, irregular pain, accompanied in most cases with diarrhœa and vomiting, yet without fever. The two general types of colic include—(1) that due to undigested or indigestible matter or other irritating substances in the bowels, and (2) that due to abnormal irritability of the intestinal nerves. In many cases the suffering endured by the colicky person is the result of the combination of the two causes; but in the great majority, especially young cases, colic of the first type is a local disturbance, and to this I shall devote my remarks.

Causes.—The leading cause is undigested food which ferments and, the resultant-gas being locked up in the folds of intestine, irritates the nervous tissue. Such articles as salted or smoked meats, old or spoiled food, unripe fruit, especially that which has hard kernels or seeds, fat pork, shell-fish, rich cake and pastry, fresh and doughy or sour bread or biscuit, improperly prepared vegetables like potatoes, cabbage, turnips, beans, etc., pickles, salads, ice-cream, are prolific of attacks. Overeating, with its tendency to crowd the bowels and interfere with their normal assimilation of food, may be expected to produce colic. Long continued constipation also is a fruitful source of the disorder. The “wind colic” of children is caused by constipated bowels, the retained fœces preventing the escape of gaseous products of digestion which gradually distend the part of intestine where they lodge and so excite severe pains. Exposure to cold, may be a cause of colic, and so may fatigue from severe labor; in the latter case it is due mainly to the want of blood in the nervous tissue of the intestines. Worms may also be a cause of the irritation.

Symptoms.—The characteristic indication of colic is pain in the abdomen, be-

ginning in the region of the umbilicus, and spreading to other parts, until it may involve not only the colon, from which the term is derived, but the whole abdomen. It is remitting, comes and goes, with periods of varying intensity, but is usually severe and sometimes becomes intolerable. The bowels are, as a rule, distended, and the muscles, contracting with the spasms, feel like knots or balls. There is no fever, but, on the contrary, the skin feels cold and is covered with a cold perspiration—the pulse being little altered or may be infrequent and small. When the disorder follows irritating substances, like unripe fruit, or hard and indigestible things, there is usually vomiting and diarrhœa. In children the bowels may be costive at first and then offensive stools occur, becoming very loose. In that form which is called *bilious colic* there precedes—or is connected with the attack—a disturbance of the liver, which manifests itself by stomach disorder, a bad taste in the mouth, want of appetite, more or less nausea, yellow fur on the tongue, etc. During the attack the pain is very sharp, the vomited matter is mixed with bile, and the bowels move freely.

The attack may be very short or continue for several days; it usually ceases all at once leaving a sensation of soreness. Of course, if persistent, colic becomes a serious affair, and may lead to inflammation of the coats of the intestines and peritonitis, but with proper attention in the outset, little danger may be comprehended.

Treatment.—This, in a case of ordinary colic is simple, and consists first, in relieving the stomach and bowels of the thing or things that have produced the disturbance, one or two full enemas of warm water will usually effect this. Warm water swallowed freely will aid to produce vomiting; a tablespoonful of mustard or of common salt in a glass of tepid water, is useful in the same direction. If the spasms continue, it is well

to persist in these methods until we are assured that the stomach and intestines are clear of the offending matter. Hot fomentations, or cloths wrung out of hot water, placed on the abdomen, are serviceable in relieving the pain; where these can not be promptly administered, mustard may be applied in the ordinary way, or by the neater use of a flat sponge.

A full warm bath has its virtue as a remedy, which should be accompanied with hard rubbing. I have great confidence in massage for the subduing of colic pains, as well as of almost every other form of nerve irritability; but no

permanent relief can be expected unless the bowels have been rid of the abnormal substances that have produced the disorder.

In some cases, that are due to constipation or a constricted state of the bowels, warm water may fail to give the desired relief from pain; for these, tepid or cold water is usually found to be suitable, and should be administered by injections and hip or sitz baths, as the leading processes. Whenever the hip or sitz bath is employed, the abdomen and back of the patient should be thoroughly rubbed, and the muscles well-manipulated. H. S. D.

INEBRIETY AND ITS CURE.

WHILE the increased culture and intelligence of the race drives out the coarser and more repulsive symptoms of inebriety, the mortality is increased, and alcohol is more used for its narcotic properties and to quiet pain. Inebriety is more concealed to-day, and is followed by more allied diseases, and is more maniacal, suicidal, and impulsive. Pneumonia, Bright's disease, heart disease, apoplexy, are some of the names given to the fatal cases of inebriety. From all exact study we find that the causes of inebriety are physical, and can be traced to clear, tangible forces. The furthest study in this direction establishes this fact beyond doubt, and reveals vast stretches of unknown causes and conditions entering into inebriety, awaiting some future discovery.

In the *Cure of Inebriety* there is probably more agitation and interest than ever before. The efforts of societies and parties, of the pulpit and rostrum, with the increasing books and papers from the press, have never been more active than to-day. Yet reports show that inebriety is increasing and that more spirits are made and consumed every year. All the temperance efforts and legal means for the cure and prevention of inebriety are based on the theory that

it is a moral disorder which the victim can control at will, or a wicked habit that he can continue or put away at his own pleasure. This theory of inebriety is theoretical, and embodies the same error which follows every new advance of thought—namely, explaining all human action from some moral or theological standpoint. Thus the phenomenon of insanity was explained as a possession of the devil, and the victims were supposed to enter into a compact with evil spirits, voluntarily. The remedy was severe punishment. Public attention was occupied for ages in persecuting and punishing the insane and epileptics on this theory of their causation. Law, religion, government, and public sentiment, all failed in the cure and prevention by this means, and these diseases went on unchecked, simply because the real causes were unknown.

Inebriety is regarded in the same way as wickedness, and the same means are urged as a remedy. Over fifty thousand inebriates were sent to jail in 1886, and punished as wilful and voluntary drunkards. Armies of moralists and temperance people are pledging and praying the inebriate to stop drinking, and exercise his will, and be temperate and well again. Yet all such efforts

fail and often tend to increase the very condition which they seek to remedy. They fail because they are based on a false assumption of the causes, and not on any accurate study of the history or real condition of the patient. A new era is dawning for the inebriate. His diseased condition, and the need of special medical care in special surroundings is a truth that is spreading slowly and surely in all directions. Not far away in the future inebriety will be regarded as small-pox cases are now in every community. The inebriate will be forced to go into quarantine and be treated for his malady until he recovers. The delusion that he can stop at will because he says so will pass away. Public sentiment will not permit the victim to grow into chronic stages; the army of moderate and periodic drinkers will be forced to disappear, and the saloons which they have supported will close in obedience to a higher law than any prohibition sentiment.

Public sentiment will realize that every inebriate is not only diseased but dangerous to society, to himself and all his surroundings, and demand legal guardianship and restriction of personal liberty until he recovers. When these poor victims realize that society will not tolerate their presence or allow them personal liberty in this state, they will seek help and aid before they reach extreme stages.

This is the teaching of modern science,—to check the disease at the beginning, to seize the poor waif on the street and the rich man's son, who are just at the beginning of inebriety, and force them into conditions of health and sobriety, to save the one from becoming a prey on society and a burden to the producer and tax-payer, and the other from destroying society and himself and leaving a tide of misery and sorrow that will continue long after. When society shall realize and act on these facts, the great centers of pauperism and criminality will

be broken up. This will be accomplished by the establishment of work-house hospitals, where the inebriate can be treated and restrained. Such places must be located in the country, removed from large cities and towns, and conducted on a military basis. They must have all the best appliances and remedial means to build up and restore the debilitated victim. They should be military training hospitals, where all the surroundings are under the exact care of the physician, and every condition of life is regulated with steady uniformity. Besides the medicinal and hygienic treatment, there should be educational and industrial training, and each one should be employed, both in body and mind, every day. He should be placed in a condition for the best culture and building up of the entire man. Every defect of body and mind should be antagonized and remedied as far as possible. Each case should be an object of study to ascertain the real state and the means to strengthen and improve it. These hospitals should be built and conducted entirely from the license fund or the taxes on the sale of spirits. They should, in a large measure, be self-supporting from the labor of the inmates, and independent of the tax-payers. These places would most naturally divide into three distinct grades. The first class of hospitals should be for recent cases, where the inmates can be committed by the courts, or voluntarily commit themselves for one or two years. The second class should receive chronic cases for longer terms of treatment—from one to three years. The third class should be for the incurables, or those who give no reasonable promise of restoration. The time should be from five to ten years and life. The latter class should be thoroughly organized into military habits of life and work, and kept in the best conditions of forced healthy living. Employment and mental occupation should be carried out literally as a stimulus to strengthen the body and mind. Where it was possible

the rewards of his labor, beyond a sum to pay for care, should be turned over to his family and friends or held in trust for him. He should be encouraged to healthy work and living by all possible means and surroundings. The semi-chronic cases should be treated substantially the same way, only occupation and training of the mind and body should be more suited to the wants of each case. The amusements should also be of a sanitary character.

The recent cases should have the same exact discipline, filling the mind with new duties and new thoughts, and suited to build up the exhausted, overworked man, as well as the gormand and underworked idler. All persons should pay for their care if possible, and be required to render some service which would be credited on their bills. These hospitals should be literally quarantine stations, where the inebriate can be housed and protected and society saved from the losses following his career.

If ten thousand poor chronic inebriates could be taken from New York and placed in such hospitals, and made self-supporting, who could estimate the gain to society, to morals, to the tax-payer, and to civilization? This can and will be done in the near future. If ten thousand semi-chronic cases of inebriety could be taken from New York and quarantined two or five years in such military hospitals, and made to pay for their care by labor, who could estimate how many would be returned to health and temperate living again?—who could estimate the relief from sorrow, misery, wretchedness, and losses? This will also be a reality a little farther on. If ten thousand recent cases of inebriety could be taken out of their surroundings in New York and placed in these hospitals, where forced conditions of the highest degree of health and vigor are maintained, a large percentage would recover. The gain to society and the world would be beyond all computation. Now each* one of these propositions and the

practical working of a military hospital is a reality, based on evidence constantly accumulating. Every prison, penitentiary, or hospital, every asylum or home where inebriates come under care and restraint bring such evidence. They show that such a method of treatment, combining the varied experiences of all these institutions can be made practical, and is the only scientific way of solving this problem. To banish the still and saloon does not prevent inebriety or cure the inebriate; it only changes the direction of the drink current. But quarantine the inebriate in a hospital as one suffering from contagious disease, and the victim is cured, the spread of the disease is prevented, and a knowledge of the causes ascertained, from which the remedies can be known and applied. To punish the inebriate as a criminal can not cure his inebriety, but it always unfits him for living a temperate, healthy life hereafter. To attempt a cure by faith and prayer is to depend on false hopes, the failure of which is followed by increased degeneration. To attempt any form of treatment without knowing any other fact except that the victim drinks to excess is always to blunder and fail.

The time has come to recognize the physical conditions which enter into all cases of inebriety, and to apply exact remedies along the line of nature's laws and forces.

T. D. CROTHERS, M.D.

“Walnut Lodge,” Hartford, Conn.

BOVINE TUBERCULOSIS.—Our contemporary, *Science*, makes a paper on this subject lately read and discussed in the New York Academy of Medicine, by Dr. Beane, the subject of some very sensible comments, which we freely reproduce. The paper called special attention to the prevalence of consumption in cattle, and to the danger of human beings contracting the disease through the milk and meat of infected animals. To prevent the sale and use of such milk and meat,

there is but one way—namely, by a rigid inspection of the cows at the stables where they are kept, and of the carcasses at the slaughter houses before the viscera are removed.

Tuberculous milk can not be distinguished from that which is not tuberculous, and the most thorough expert examination of the meat of a tuberculous animal will not suffice to exclude such meat from the market, unless the inspector can also examine the lungs and other internal organs in which the disease manifests itself. The cow-stables being situated, for the most part, in the country, the inspection of these should be performed by officers of the State Board of Health, while the slaughter-houses, being in the cities, should be rigidly watched by experienced veterinarians, who should be on duty continuously at these slaughter-houses, in order that no single animal can be sold for meat unless it has been examined.

No confidence can be placed in the

slaughterers as a class. They will, without any compunction whatever, kill and sell the most diseased animals, and do not hesitate to put upon the market even the flesh of new-born calves, and of those that have died with disease. It will be an expensive matter, our contemporary concludes, to station a competent veterinary surgeon at each of the slaughter-houses in the great cities; but the interests of the public health demand it, and they should be kept there continuously.

Our hygienic friends, who consider milk unwholesome, may point to such facts as these as strong evidence in their favor. One who visits a slaughtering place and notes the condition of many of the animals—especially beef-cattle—killed there is not likely to feel encouraged as a flesh-eater; and they may also advise all who would avoid the dangers indicated, by the prevalence of disease in animals whose flesh is commonly used as food, to refrain from eating butcher's stuff altogether.

GOOD DOCTOR DIET.

Of Dr. Diet, who's not heard
In terms polite and phrase absurd?
A goodly man, of goodly deed,
Proclaiming here and there his creed,
Of eating plain and simple.

Welcome he gets at doors too few,
Though goes he there, kindness to do;
To save the young from griping aches,
That follow eating sugared cakes;
To save the old from fevers grim;
From pains that wrench each nether limb;
He proffers counsel calmly.

His step is light; his eye is clear;
His cheek is plump, but not from beer;
So fresh and hearty; yet I'm told
You couldn't guess how very old—
Yet always fresh and cheery.

For those who dote on dishes rich,
On liver stews and greasy fitch;
For those who stuff, and drink and spree,
And at big dinners like to be—

This good man has a curious smile;
He knows that in a little while
Of bile and gout they'll grumble.

He loves the pure, and sweet and good,
Who relish best his simple food;
He bids them eat for strength and use—
"Yon rake is always too profuse"—
Says Dr. Diet, sadly.

When one is sick, and asks for him,
Comes Dr. Diet gently in,
And brings in counsel him to see
Old Dr. Quiet—they agree,
As doctors should, serenely.

But best for all, if I must tell,
Is Dr. D., when we are well;
His wise commands all should obey,
And comfort take from day to day;
With mind alert and full of vim,
With body sound from core to rim,
Make life sunlit and happy.

HAL. D. RAYTON.

NOTES IN SCIENCE AND INDUSTRY.

Roburite—A New Explosive.—

A number of experiments were conducted lately at the works of Messrs. Heenan & Froude, Manchester, with a new explosive, called "roburite," which is manufactured in Germany, and is about to be introduced into this country for use in blasting operations. The composition and process of manufacture of this explosive are kept secret, but we understand that it consists of two non-explosive and perfectly harmless substances, of such a nature that they may be stored or transported without special precautions or restrictions. These two substances may be mixed together when required, and, in combination, become roburite, a yellowish compound, which will bear rough handling with safety. We understand that an intense heat is necessary to explode it. In order to prove this, the explosive was placed, in the experiments in question, between two plates which were freely rubbed together and hammered; and a small quantity thrown upon a fire was merely consumed, without exploding.

In order to obtain an idea of the explosive effectiveness of roburite, eight ounces of the explosive were placed on a plate of the very best steel. This plate was three feet square by one-half inch thick, and a bulge of about one foot diameter, and three and a half inches deep was caused by the explosion. Twelve ounces of the explosive were then placed on a cast iron plate, six inches thick, and, weighing nearly three tons. After the explosion the plate was found to be broken transversely. Unlike dynamite, roburite is said to be in no way affected by varying temperatures, and if duly protected against damp, it may be kept for years in any climate, without its efficiency becoming in any way impaired. It is also claimed by the manufacturers that roburite has an explosive force greater than dynamite by at least twenty-five per cent. In exploding, roburite does not produce noxious gases, and, therefore, may be used without intermission, while the poisonous gases given off by dynamite often necessitate the stoppage of work, in some cases for a considerable time. This new explosive is applicable for use in mines

and quarries, and for torpedoes and blasting operations generally.—*Industries.*

Sources of Ivory.—Mammoth tusks of ivory occasionally come to this country from Siberia; but as these have been lying exposed for centuries, and probably for thousands of years, and often buried in ice, the "nature" has gone out of them, and they are not fit for the cutler's use. The teeth of the walrus and hippopotamus are used in considerable quantity, and being of suitable size, are used whole for expensive carved handles.

Ivory of the best quality comes from the west coast of Africa, under the names of Cameroon, Angola and Gaboon ivory. This is brought down from the interior, and retains a large proportion of the fat or gelatine, from the fact, probably, that it is more recently from the animal. In this state it is called "green ivory." It is more translucent and not so white as the Egyptian and other kinds, called "white" ivory, that have been found lying a longer time and in a more sandy region, and exposed to the heat of the sun until the animal matter has disappeared.

Some time ago, *Home and Farm* published the appended recipe for washing clothes with kerosene, and now says it received for the same letters of thanks from "hundreds of tired women all over the land:"

"For one bar of soap use three tablespoonfuls of coal-oil, such as you use in the lamp. For a family of five or six, put enough water in the boiler to boil the clothes, add two tablespoonfuls of coal-oil and two-thirds of a bar of soap, or its equivalent of soft-soap, let it come to a boil; wet your cleanest clothes in cold water or warmed enough for comfort. If wristbands are very dirty, a little soap may be rubbed on them; put them in the boiling water and boil fifteen or twenty minutes. While they are boiling wet the next boilerful, and if very dirty, add another spoonful of oil and more soap. The last boiler will not need any more oil or soap. It takes about as much soap as the ordinary way, but it is all put in the boiler. After

boiling suds rinse as usual. Two things remember—have plenty of soap in boiling water, and have it boiling when the clothes are put in. If you fail the first time, try, try again; you will be sure to like it. In a few weeks it will be seen that the clothes have been through a new bleaching process. We have washed this way nearly a year—long enough to test it—and our clothes look nice and white.”

Artificial Wintergreen.—In the opinion of the editor of the *American Druggist*, the supply of the natural oil of wintergreen or birch will soon cease to be of any commercial importance, since the artificial product (salicylate of methyl,) to which reference was made recently in these columns, is now being prepared of such good and uniform quality that it will undoubtedly replace the natural oil. Moreover, the artificial article can be produced at a cost below that at which the natural oil can be distilled profitably. This adds but another to the long list of extracts that are prepared by chemistry, and take the place of natural products. Acids, fusil-oil, coal-tar are rich sources of many so-called fruit essences, flavorings, etc. Yet our legislatures are not asked to interfere with their sale, as in the case of oleomargarine butter.

Brain - Volume and Intelligence.—Dr. Adolph Bloch has published in the *Revue d'Anthropologie* a memoir on the relations existing between intelligence and the volume of the brain in man. He concludes that while there is no absolute relation, for very intelligent persons may have a small brain, the conditions, which make the brain to be larger or smaller are manifold. The volume of the encephalus may be related to the size, to the weight of the body and to the muscular power; and the brain itself may become voluminous in the race and the individual, according to the degree of intellectual activity. The most important factor in the degree of the intelligence of the individual is the quality of the cerebral cell; and that is determined by the greater or less impressionability or excitability of that structure regarded as the substratum of intelligence. This impressionability may be native or acquired. In the

former case it is the mark of a superior intelligence; in the latter, it may be produced by such sustained labor as every man of genius is compelled to endure. It may also be developed by nervous disease. In a whole race, there are influences, not depending on the individual, but acting upon all that contribute to the perfection of intelligence and the selection of remarkable men. The kind and degree of intelligence are also variable according to races; but in no case can the volume of the brain alone constitute the principal factor of intelligence.

Glacial Action in East Africa.

—Mr. H. E. O'Neill, British counsel at Mozambique, in a description of Eastern Africa between the Zambesi and Rovuma rivers, speaks of the frequency with which one encounters evidence of glacial action as a very interesting point to the traveler in that country. “I have met with it,” he says, “upon the Namuli range, in the Inagu Hills, and again much nearer the coast, among a small block of hills called the Tugni. You see it everywhere in the smooth, dome-shaped tops and polished precipitous sides of the hills of the country, but the clearest evidence is afforded by the more striking spectacle of huge detached blocks lying across the summits of peaks—blocks many tons in weight, which could never have been carried there by any other known physical agency than that of ice.”

Why Seal-Skin Garments are Dear.

—Few skins are less attractive than this at first, as the fur is entirely covered and hidden by the dull gray-brown and grizzled overhair. This has to be removed, and it is an operation requiring patience and skill. The unhairing is effected by warmth and moisture, which softens the roots of the overhair and enables it to be pulled out, or by shaving the inner side very thin, which cuts off the roots of the hair, which penetrate deeply, and leaves untouched those of the fur, which are very superficial. Whichever method is employed, the hair must be taken off uniformly or the fur will never lie smoothly but always have a rumpled look; and this can never be corrected by any subsequent treatment. This will explain to some extent the cause of the high price of

seal-skin jackets and cloaks, and also the cause of the different prices one hears of, as a good many skins are more or less spoilt in the dressing. Another cause, too, is the quality of the dye, and the workmanship employed in its use. The liquid color is put on with a brush, and the points of the standing fur carefully covered; the skin is then rolled up, fur inside, and then after a little time, hung up and dried. The dry dye is then removed, and a further coat applied, dried, removed and so on till the requisite shade is obtained. One or two of these coats are laid on thick and pressed down to the roots of the fur, making what is called the ground. From eight to twelve coats are needed to produce a good color. No wonder a first class seal-skin is expensive; it is just as true now as ever it was, but in these days of universal cheapness one is apt to forget that, if you want a really good thing you must pay a good price.

The Intelligent Mechanic's Labor.—A group of gentlemen were discussing the necessity of brain labor in some life vocations, and after allusions had been made to several well-known citizens who were successful and prominent in their professions, one of the speakers, himself a retired merchant and influential politician, declared that Blank, naming a draftsman and inventor employed in a large machine-tool manufactory, did more brain labor than any other man in the city. Some examples were cited of well-known mechanics, and the conclusion was reached that intelligent mechanical labor required as much solid thinking as any other way.

The intelligent mechanic is not a mere walking machine; materials are not always plastic; they are sometimes perverse, and judgment and calm consideration are required in their management. The parts of a machine, however closely planned, do not come together unaided and naturally, as eyestones converge in a saucer of vinegar; it requires head work to "assemble" the parts of a machine of any kind, and now-a-days when mechanical work requires an accuracy of proportions and a nicety of dimensions such as were not dreamed of a generation ago, the mechanic who is not brainy in his line will surely get left.—[Ex.

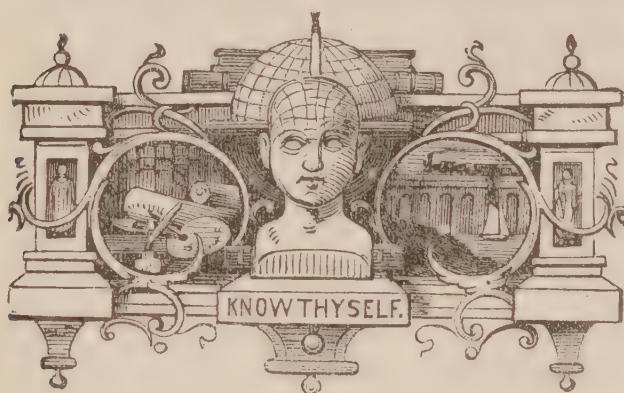
Pollution of Rain Water.—The atmosphere, says the Royal Commission on the Domestic Water Supply of Great Britain, is the recipient of vast aggregate quantities of impurity, derived partly from the respiration of animals, partly from the combustion of enormous quantities of fuel, and partly from excremental dust, the fine particles of which, in dry weather, become suspended in the air to the extent, over the area of this country, of hundreds of tons, and remain there for weeks until washed out by rain. Thus rain is in reality water which has washed a more or less dirty atmosphere. It is laden with mineral and excrementitious dust, zymotic germs, and the products of animal and vegetable decay and putrefaction. A half-pint of rain water condenses out of about 3,373 cubic feet of air, and thus in drinking a tumbler of water, impurities which would only gain access to the lungs in about eight days, may be swallowed at once. On the roofs of dwellings this rain water, which is after all the only source of our water-supply, meets with soot and dust, and on the fields of manure and all sorts of impurities, which it carries down into wells, streams and rivers. These sources in their turn are liable to be further contaminated by soakings or infiltrations from cesspools and privies, and also on a larger scale by the land drainage, sewage and refuse of towns, which flow into our rivers, by dead fish and animals and decomposing weeds.

Composition of a Ton of Coal.—There is more in a heap of coal than most persons are aware of. Besides gas, a ton of gas-coal will yield 1,500 pounds of coke, 20 gallons of ammonia water, and 140 pounds of coal tar. Destructive distillation of the coal tar gives 69.6 pounds of pitch, 17 pounds of creosote, 14 pounds of heavy oils, 9.5 pounds naphtha yellow, 6.3 pounds of naphthaline, 4.75 pounds of naphthol, 2.25 pounds of alizarine, 2.4 pounds of solvent naphtha, 1.5 pounds of phenol, 1.1 pounds of aniline, 0.77 pound of toluidine, 0.46 pounds of anthracene, and 0.9 pound of toluene. From the last named substance is obtained the product known as saccharine, which is said to be 230 times as sweet as the best cane sugar.

Imitation Ground Glass.—A coarse method of “blinding” a window, or rendering the panes of glass impervious to sight, though not impervious to light, is to paint it with a thin coat of paint. A much better method, however, and one which will render the glass apparently of the same appearance as if it had been ground or “sand-blasted,” is the following: Dissolve fifty parts of sandaric and thirty parts of mastic in 500 parts of ether, and add to the solution such an amount of benzine that a portion of the liquid, when spread upon the glass, will leave, after drying, a dull uniform coat, causing the glass to appear as if ground. When the solution is to be applied, it is advisable that the win-

dow be laid in a horizontal position. If this is not possible, the liquid may be applied by a spray apparatus, taking care that no more is applied at a time than can dry at once. Finally, where a sufficient coat has been produced, a spray of benzine may be passed over it to give it more uniformity.—*American Druggist*

To Take out Wine, and all Kinds of Fruit Stains from Table Linen.—Dissolve two ounces of chloride of lime in one pint of water, stirring until there are no lumps. Dissolve also two ounces of sal-soda in one pint of warm water. Mix together and let it stand until clear. Then pour into a bottle and cork tight. When used add one-third clear water.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
JUNE, 1887.

AT “775.”

AFTER weeks of preparation with its confused array of carpenters, painters, plumbers, machinists and all the hurry, worry and fatigue incident to the removal of the large and miscellaneous stock of books, material and apparatus from a place that had been our general rendezvous for seven years, behold us drawing a long breath in new quarters. Nature is smiling in her fresh garment of green; the warm breath of Southern breezes heralds the near approach of

summer. There is new life in the streets; the increased travel, the thronging pedestrians, indicate fresh activity and growth in the great metropolis. We are hopeful that the change it has been necessary to make will prove advantageous. New responsibilities have been assumed, new enterprises have been projected; the day seems to demand them; the spirit that pervades the atmosphere which we breathe seems to challenge us to

“Act, act in the living present.”

Our work, indeed, is taking a broader range, and to disregard the signs of the times would be prejudicial to our cause, and a loss to the community of much moral and physical benefit. Here at “775,” with a closer approach to the center of business traffic in this part of New York city, we hope to realize more than ever before the usefulness of the work inaugurated by Gall and Spurzheim, and to further every effort that has the peace and prosperity of men in view. There is a great amount of error, skepticism, duplicity and opposition in the way of the earnest minister of the true and good, but he should remember that there is

also a great amount of honesty, faith, endurance and sympathy awaiting him, and ready to encourage him in the way. As one says :

"Earth is full of sin,
But also full of God."

declaring a truth that should and does strengthen the heart and hand of him who labors for his fellow-men.

May we not be assured of the sympathy and co-operation of every JOURNAL reader in our humanitarian work? And is it at all savoring of presumption to express the feeling that our work is ennobled by motives and objects of a high and humanitarian character?

Welcome, therefore, are all our friends to "775."

SEVENTH CENTURY SKULLS AND MODERN.

IN the *Journal of the American Medical Association* there is an article by Dr. C. F. Dight, Professor in the American Medical College, in Beirut, Syria, which contains an interesting account of the examination of a collection of human skulls, stored in the old monastery of Mar Saba, which stands in the Kedron Valley, midway between Jerusalem and the Dead Sea.

"Comparing the average measurements of these skulls with the present average measurements of skulls of the same race (the Caucasian), and if the above measurements are taken as the average of the race at that time (and persons of their rank at that time should have skulls above, rather than below the average), Dr. Dight says that it follows :

1. That ours, the Caucasian skull, has, during the past thirteen or fourteen centuries, increased in horizontal circumference 1.72 inches, and to a less extent in height, and not at all in width, and

has gained in cranial capacity 3.7 cubic inches.

2. From the fact that our skulls have not gained in width, it follows that this gain in capacity of 3.7 cubic inches is due to increase in their height and length, which, bearing in mind the plan of development of the brain, implies an increase in size of the upper and the anterior parts of the brain—the exact parts which, on *a priori* grounds we should expect to increase by education and civilization, since these parts of the brain specially preside over the moral and intellectual functions.

3. The lower portions of the brain, being the parts which specially preside over the selfish propensities, or the so-called inferior functions, and which give breadth to the head, being called into activity less as education and civilization advance, have failed to grow as rapidly as other and more exercised portions of the brain; hence the non-increase in the width of our skulls."

The views of Dr. Dight on the development of the brain in civilization represent the general opinion of anthropologists to-day, and find strong confirmation in comparative measurements that may be made of barbarous and civilized races that are living. It is the development of the frontal and parietal lobes that distinguishes the modern European or Caucasian type of race above other races, and the relation of that development to type and product of intellect and moral sentiment is one of the causes of mental physiology. Without such a cause Dr. Dight and all other observers would not be able to explain in so definite a style such phenomena as he has observed in those old crania of the Syrian monastery. There may be a margin of doubt concerning small divisions of the central convolutions, but there

can be little question about regions and their particular exercise of function. When the early apostles of Phrenology demonstrated the important duty of the brain in man's activities to be his instrument of thought, the science of the world was greatly enriched, and when out of that fact naturally enough grew the second almost equally great fact of organic centers of special function, the world was not so ready to accept it. Now, however, observation and reason combine to render it incontestible, and its application has solved a hundred problems in human conduct and character, making, indeed, the psychical nature of man as much a subject of exact study as his physical constitution.

A POINT OR TWO IN SECRET SOCIETIES.

WE have no serious objection to "secret societies"—provided that they are not anarchistic, communistic, ultra-socialistic, or devices of unhappy, envious people who dislike honest industry and spend most of their time in troubling those who are willing to earn their bread and butter. We think that it is possible for a "secret society" to do first-class duty for its members and society—on the principle of not letting the left hand know what the right hand does; and occasions may arise in the life of a community when instrumentalities, whose nature is concealed for a time from public notice, become quite essential to success in carrying out some beneficial purpose. As a whole, however, we think "secrecy" unnecessary to the accomplishment of a proper object. A merchant can conduct a large business, a lawyer manage an important trust with-

out any profession of secrecy. To be sure it is not expected that people who are not interested personally will play the busybody or Paul Pry in regard to a man's private affairs. We say to the curious, impertinent fellow who puts his nose into our own matters, "Keep your distance," "Mind your own business," recognizing it simply a matter of common right that we should be free from espionage in what concerns ourselves.

Secret societies are a relic of the era of despotism, cruelty and ignorance, when men found it necessary to band together under the most solemn pledges to protect themselves against injustice and oppression—or to make a united endeavor to secure the rights and privileges that were withheld by tyrannical rulers. In this day of schools, newspapers and free thought it is not at all necessary for men to meet in dark, out-of-the-way chambers, have a system of pass-words, hand-grips and salutations, and accost each other furtively if they have some grievance to adjust with the Government, or any creature of government. They can organize, hire a hall, discuss the matter of complaint, circulate pamphlets or an "organ" devoted to the explication of their views, assail the seats of authority with petitions and memorials, and so work up a tide of sentiment in their favor among the people at large. If their complaints be well-founded, and they work shoulder to shoulder, before long their influence on public thought becomes considerable, and the political world is disposed to lend an ear to their demands.

Truth and virtue love the light; in the clear sunshine they appear resplendent

and attractive. Morality needs not the devices of subterfuge, or clandestine maneuver for its assertion. With an open field and the world for an audience stern integrity is sure to win. If the good citizens in any community are subject to the capricious dominion of the vicious it is the consequence of their lack of energy in the contest for political control.

For some organizations there is an attractive glamor in secrecy. Men with large Secretiveness, large Caution, moderate Combateness and a tendency to melancholia, by reason of low nutritive capacity, may lean toward secret associations—while men of abounding vitality, strong individualism and force of character, do not as a rule see the expediency of hidden, concealed dealings in social or civil life. Very few of this class are found in the membership of the secret orders whose names are familiar to us. They do not perceive how their ends can in any sense be promoted by an alliance with a professedly secret society.

We have met those who expressed an enthusiastic approval of membership in such fraternities as the Masonic or the Odd Fellows, claiming that it helped them much in matters financial; and we know successful men who have no membership in such orders.

Very likely if the roll were called of our rich men the number who would respond "Yes" to the question "Are you a member of a secret society?" would be a small minority—for we suspect that the more popular of such societies make benevolence so prominent a feature that he who eagerly watches his growing bank-account and would be rich is not likely to offer his name for acceptance

to the committee on membership. But benevolence can not be urged as a great reason for doing that which is not to be seen of men, because the vaster proportion of charitable work in communities is done through organizations, churches especially, and it is of a broad, liberal character, while the charity of the secret order is mainly of the close, for-ourselves sort. If a man wishes to dispense spare money in behalf of the poor, there are institutions right at hand whose management is open to his inspection and whose facilities will make his dollars go farther than he, unaided, could make them go.

If a man desires to improve his intellect by study and discussion, there are scientific and literary societies that he can join and find in them more abundant facilities for his purpose than may be furnished by any secret organization. As for social advantages, friendly intimacies, while it is claimed that the hard-and-fast ties of such organizations have in them their best warrant for existence, we think that in the association of Christian duties, and in those relations of human sympathy that draw congenial souls together, there may be as much enjoyment and satisfaction as it is possible for men and women to experience.

DIFFERENT KINDS OF THIEVES.

A correspondent asks: "What is the difference between a horse-thief and a money-thief?"

We answer, first, they are alike in this, that they are guilty of the crime of stealing, but a horse-thief is considered a more dangerous criminal than a money thief, because the opportunities are so great for the stealing of a horse, and then

the horse helps to take the man away from the consequences of his crime. If a man were to steal a ton of pig-iron it would be more of a burden than a blessing, but if he could steal a horse worth a ton of pig-iron, or twenty tons of pig-iron, the horse would help him get away, whereas the iron would hold him in check.

There are many kinds of thieving. There are some persons that will steal only that which can be eaten, fruit, especially water-melons, raisins, things about the house; they are affected or influenced to steal by Alimentiveness. Another person will not steal something to eat, but will steal a beautiful ribbon, or a bit of jewelry, or some decoration; they are affected by their Ideality; another will steal something to decorate the person, then Ideality and Approbateness combine, and Acquisitiveness steals to gratify them.

We knew a man who would steal nothing but money; it was understood by all his friends that if money were left where he could get at it he would take it, but a silk handkerchief, a piece of silk or velvet cloth, or a gold watch, probably even water-melons and chickens would be safe in his society. An old darkey said that "ligion would keep a colored pusson from stealing eberyting except water-millyuns or chick'ns."

There are book-thieves; they will steal nothing but books; the intellect in this case being hungry for information makes the restraining faculties subordinate to the desire for books; on the same principle that a man who likes opium or whiskey will steal these if he can, or the means to buy them; appetite being the ostensible object.

There was a lady in Connecticut who had, we suppose, an inherited tendency to steal blue stockings; her husband was a well-to-do farmer; perhaps was as well off as any man in town; and if she were driving past a yard where a washing was hanging out, in broad daylight, at mid-afternoon, she would jump out of

her wagon, go into the door-yard, with people standing or sitting at the windows, and jerk off a pair of blue stockings which might perhaps be out at toe and heel and run to her wagon and drive off; the whole town knew that that was her peculiarity, and it was supposed that she had inherited, in some way, a morbid tendency to steal blue stockings.

The wife of a Governor of one of our States, forty years ago, who was rich in her own right, and her husband was wealthy, would go into stores where she was shopping and fill her pockets with the cheapest kind of stockings, and anything she could get into her pocket; things she would not wear or use; and when she reached home would empty her pockets and throw the articles on the kitchen floor. Her servants expected a treat every time she came back from a tour of shopping. She bought nice goods for herself, and was able to buy all she wanted, but she had a desire, perhaps an uncontrollable one, to steal whatever she could carry away, regardless of its nature or uses, and she did not want them and would not use them. An arrangement was made by the Governor with the merchants where she was accustomed to trade, to see what she might take and charge them to her account, and he would pay the bill.

A young gentleman about thirty years ago, the son of a Presbyterian Doctor of Divinity, and a college-bred young man, had a trick or impulse to steal one slipper belonging to a lady; he did not want a pair. He would take one of his mother's slippers, or his wife's, and though she might ask him about it and though he would help hunt for it, he would furnish the money to buy another pair, and watch for a chance to steal one of them and hide it away down cellar or up in the attic where he would never look at it again. Walking in Brooklyn, N. Y., one bright afternoon, he saw a lady crossing the street ahead of him, who had a neat pair of slippers on her feet. He ran

up behind her, and as she lifted her foot he whipped one of them off. She screamed, of course, and he was arrested and taken before the court, and his father and mother were summoned from the city of Albany to Brooklyn to testify to the fact that that had been a peculiarity of his from childhood, to steal one slipper. The judge regarded it as an impulse derived from hereditary influence and not as a crime, but he fined him ten dollars for the rude assault to the lady, admonished and discharged him.

Let us ask our friend if these thieves we have described are not different from each other as their motives were based on different faculties, one on Alimentiveness or appetite, one on Ideality, another on Approbativeness; one on mere parsimony, and that one stole money. To the man who stole the slipper and the woman who stole the blue stockings it is difficult to assign any cause except an hereditary one. It is known that some persons inherit a passionate appetite for strawberries, another for cheese, another for coffee, and we know a lady who got a chance at six-months old to smoke a pipe; and she is seventy-three and is smoking still. So there is a difference in thieves; those who steal for gain, those who *wickedly* steal as we call it, exercise their Acquisitiveness inordinately, just as a man exercises Destructiveness and Combativeness inordinately who assaults people, or as another may exercise Alimentiveness in an abnormal, excessive way, and incur the penalty of broken physiological law. Yes, thieves are different; tyrants are different; cowards are different; quarrelsome men quarrel in different ways, and a harp of a thousand strings can get out of tune in ways not a few.

N. S.

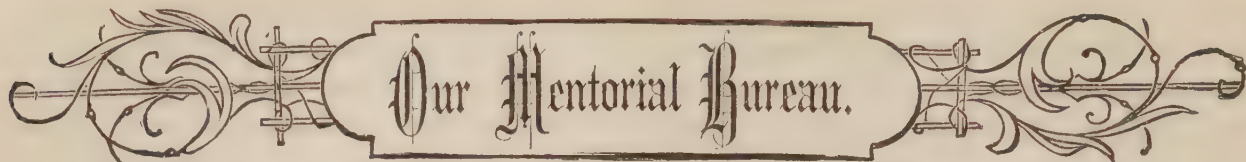
A HYGIENIC COLLEGE IN THE WEST.

MANY of the readers of the PHRENOLOGICAL will be pleased to know that there is a movement among the friends of hygienic medicine for establishing a college in which the principles of hygi-

enic treatment will be taught. A convention was called, and met in St. Louis, in which seventeen States and a number of large cities were represented. It was there decided that the time had come for the founding of a school of this sort, and that St. Louis was a suitable place for its location. After considerable deliberation the following name was selected, as sufficiently comprehensive in its meaning and easily understood by the masses; viz.: "The St. Louis Hygienic College of Physicians and Surgeons." It was also agreed that the degree to be conferred should be the time-honored "M. D.;" the term "doctor" signifying a *teacher*, and "medicine" any substance or agent that is employed in the treatment of disease.

The college, which is now about to be chartered, is intended to be national in character rather than local, and to afford facilities for a *thorough* medical education for men and women. It is expected that arrangements will be completed for its opening about the first of October, this year. The full course of studies required under the charter will take all of three years (there being a term of six months in each year) for its completion—though, for those who do not desire to go into practice, a special course, without graduation, will be arranged. Circulars with full particulars will soon be issued. There should be an institution of this character in the East also. The suspension of the school organized by Dr. Trall was unfortunate. The result of so many years of earnest labor by that brave man should not have been permitted to drop out of existence. We hope that the St. Louis undertaking will prove successful enough in a short time to spur Eastern hygienists to action and the founding at an early day of a medical school here that will be a credit to progressive medicine.

To an honest mind the best perquisites of a place are the advantages it gives a man of doing good.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

HEAD MEASUREMENTS.—T. B. T.—We can not refer you to any method that is likely to produce better results than that of Mr. Straton, which was published in the last month's PHRENOLOGICAL JOURNAL. As you know, to measure so irregular a solid as the living head involves many difficulties, and it is simply impossible to obtain an exact quan-

tity. If with tape-line and callipers we can obtain data that will enable us to come within two or three cubic inches every time, we do well, and Mr. Straton's rule accomplishes that. We think that Dr. Barker must have had Mr. Straton's system in mind when he told you about his method, but your recollection of it would be far from satisfactory if a trial were made, because you can not thus obtain factors enough for calculating the area. The reason that Straton's method has not become general, is probably due to the time and care required in taking the measurements and obtaining the mean dimensions—yet if close accuracy is desirable for making comparative estimates, we think that phrenologists would find it to their advantage to adopt the method.

PROFESSIONAL ADAPTATION.—W. J. M.—The illustration to which you refer in "Human Science," is more a sketch to illustrate the appearance of a certain organic development than a portrait from life. As you see, it represents a child's head, and one rather exaggerated. To give an opinion of value on the important point you have mentioned could not be predicated fairly of such a head. We need an organization much nearer maturity—as might be indicated in a boy or girl at fourteen or fifteen years of age. A child of six or seven will furnish some indices of its future line of growth, but temperament and organs may be much altered in the course of eight or ten years.

HEAVY BRAINS.—T. B. T.—You will find references to the recorded weights of heavy brains in almost all the standard works on physiology—Dalton's, Carpenters, Flint's, etc. The lists given of course embrace but few eminent persons, on account of the objection a physiologist encounters when he would make an autopsy on the body of a distinguished man. The latest big and heavy brain that came under the surgeon's notice was Turgenieff's the celebrated writer, that weighed according to report, over 65 ounces.

FOOD FOR GROWTH.—J. N. L.—You have the range of the cereals—wheat, corn, oats, barley, for the nutrition and repair of the body, besides milk, eggs, lean beef, mutton, game, fish, poultry, in moderation; and also many kinds of vegetables—potatoes, parsnips, cauliflower, lettuce, celery, turnips, pears, contain valuable elements of tissue building; and so do many of the fruits, but most of them may be termed aids to digestion rather than food components. Look into any good work on hygiene and you will find suggestions for your use.

USEFUL BOOKS.—G.—The editor appreciates the kind feelings of the Minnesota school superintendent, who says in a letter, "You deserve the earnest thanks of every well-wisher of humanity for the excellent books you are publishing." He may not know that hereabouts there are certain persons blatantly professing to be working for "reform" in literature who would suppress if they could the very books that he welcomes so cordially as beneficent to the public. We can not but think that such "reformers" are active in the interest of a class of men who derive benefit from the misfortunes of individuals—those who get into vicious ways through ignorance or evil example. Books that are preventive of vice and crime, should be widely circulated. Candor must acknowledge this, and we hope that Eastern legislatures will be wise enough to see how useful such books are, and disappoint the misguided or mischievous lobbyist who urges special legislation in this respect.

TOO TALL.—Editor PHRENOLOGICAL JOURNAL.—How may one stop growing tall? I am five feet eight inches high, and am just sixteen years old. I am already as tall as either my father or mother, and am very slender. How should one live to get stouter and no taller?

AMELIA.

Answer.—We have forty letters about being short, where we get one from a person who is afraid of being too tall. Some run up quickly and then stop growing; another grows slowly until he is thirty. We know a man who was six feet high at thirty years of age, and he started and grew three inches more. You are as tall now as you are likely to be, and will naturally grow stouter as you

grow older, if you live rightly for health. Some remain short because the food they eat contains too little of lime. Where limestone abounds, animals and men grow tall and bony. In other regions, where wheat land must be fed with lime to make the crop stand up and contain the proper elements for bone growth, the people and animals have smaller bones, and are shorter and smoother. People are becoming too short. Be ye an exception!



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Political and Territorial Greatness.—If the English statesmen were wise they would read the lesson of comparative territory and profit by it. In ancient times, the great empires in comparison with this age were confined to small territory. Great thoughts, great deeds were accomplished in these small territories. Great thoughts and great deeds have been accomplished in the small territory of Great Britain. But the times are changing. What was relatively a good-sized territory in times past is no longer such; what was an immense private fortune, years and centuries ago is no longer considered very large. Things are not large literally, but relatively; they are large or small by comparison. The rapidly moving years are changing all things. The discovery of large tracts of thinly settled territory, inhabited only by a few rude tribes, has wrought a great revolution in this line.

The civilized world, as it has gained knowledge of such territory, has taken possession of it and thereby enlarged its sphere. We have a fine illustration of this in the movement inaugurated by Portugal. The territory was small. Yet centuries ago it would have been relatively large. The country had possessions in the wilds of South America. The Court moved there and laid the foundation of a new empire in the large territory of Brazil.

Great Britain has out-grown her narrow territory. She is circumscribed. Yet in the Eastern hemisphere she has vast possessions.

The island continent of Australia is in size about the same as the United States. If the leading influences of Great Britain could be prevailed upon to imitate Portugal—move the seat of government to Australia and leave the narrow British Isles as the colony or possession, the great kingdom may yet have a grand future. Now is her opportunity.

If her statesmen are wise it would seem that they would see it. A country like Great Britain should have a large territory and should occupy it not as a mere colony, but as the real seat of its central Government, when it can expand and respond to the mighty influence of growth from within—a growth thoroughly in harmony with the government, and to the manor born.

I. P. N.

Personal Experience—I will relate some part of my experience in Phrenology, hoping to encourage others in their efforts to learn and use its truths. I first heard of the subject when a small boy, but having no books on the subject, learned nothing at the time. At thirteen years of age my head was examined and I was then convinced of the truth of the science. I had heard of the PHRENOLOGICAL JOURNAL, but had never seen a copy, and coming across the magazine in Baltimore, in 1881, I bought it, and afterward studied carefully all the numbers I could get. In 1883 I bought the best works obtainable on Phrenology and physiognomy, and visited the Art Gallery, Smithsonian Institution, National Museum, Army Medical Museum and Rogues Gallery in Washington, in order to study the skulls, busts and portraits of men and women of history. I spent parts of the years '83 and '84 in practicing what I had learned, and in trying to learn more; meanwhile accepted a position to teach, and am still engaged at it.

I find a good field for applying the science in the schoolroom, and believe that a teacher will improve himself 30 per cent. for his work by learning how to measure each pupils organization. I was recently requested to deliver a course of lectures on *Phrenology* and make examinations, which I did, and succeeded in converting many to the science. I was challenged also to make examinations blindfold, and did so to the satisfaction of the

entire audience. I am resolved that Phrenology shall not want for advocates in "My Maryland," although I notice that she has but one name on the list of graduates of the American Institute of Phrenology.

Yours in truth,

S. A. LAYMAN.

PERSONAL.

AN INTERNATIONAL CONGRESS OF INEBRIETY.—The Council of the English society on the study of Inebriety, have arranged for an International Congress to be held at Westminster Hall, in London, July 5th and 6th of this year. A large number of distinguished physicians, will take part in the discussions. Dr. T. D. Crothers, of Hartford, who is Chairman of the American Committee, and Drs. L. D. Mason and E. C. Mann will present papers.

THE late Dr. Livingston, according to Mr. Henry M. Stanley, was a total abstainer from intoxicating beverages during his residence in Africa; and Mr. Stanley says, that he himself, during three and a half years in that hot land, did not drink ten tablespoonfuls of spirituous liquors, and was nine months in the wildest parts of equatorial Africa without a symptom of disease.

DR. ORAN R. GROSS, who died in February last, was one of those quiet, retiring men, who may be little known beyond the sphere of their special activities, yet in that sphere are recognized as possessing very eminent qualities of intellect and disposition. Dr. Gross was highly esteemed as a physician, and a successful author of musical compositions. Prof. J. J. Watson, in an appreciative obituary sketch published recently, speaks of him as one whose "beautiful voice contributed much toward the enjoyment of hundreds, who were proud to call him friend."

JAMES B. EADS.—This great inventor, whose death was announced on the 8th of March last, is a good example of what can be attained by continued application in one direction. Captain Eads, like a majority of the great inventors and scientists of the world, began life very poor. He had a strong ambition, however, at the age of thirteen to obtain the kind of knowledge which would benefit him in after years. While

very young he found employment in a dry goods house at St. Louis, where his parents resided, and his leisure moments were all taken in the study of mechanics. He obtained some excellent books on natural philosophy from his employer, and from these obtained the real foundation of an education in practical engineering that, in after years, through a wide experience, was greatly extended, and which bore fruits that must, for centuries to come, stand as monuments to his genius.

WISDOM.

"Think truly and thy thought
Shall be a fruitful seed."

Confucius declared that a man's character is decided not by the number of times that he fails, but by the number of times that he lifts himself up.

To try to do other work than that to which God has adapted us, is simply to break and ruin some of God's tools and leave our work undone.

Great is the art of beginning, but greater
the art is of ending;

Many a poem is marred by a superfluous
verse.

In all meanness there is a deficit of intellect as well as of heart, and even the cleverness of avarice is but the cunning of imbecility.—*Bulwer-Lytton*.

The base fellow sees in anyone, whatever the excellencies, only the defects and faults. A swine notices only the mud and mire in the pond that bears the lotus.—*Hindoo (Kavitamrtakupa)*.

The habit of faltering and distinguishing and concealing, and putting forward the edge of the truth instead of showing boldly the full face of it, at last leads men into an insincerity so habitual that they really do not know whether they speak the truth or not.—*Cardinal Manning*.

We pass for what we are, and we prosper or fail by what we are. There are men who may dare much and will be justified in their daring. But it is because they know they are in their place. As long as I am in my place I am safe.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

A "grinding monopoly:" A Union of the hand-organ men.

There is no rule for beauty; this enables every man to have a better-looking wife than any of his neighbors.

He (at a Boston musicale): "What a glorious interpretation!" She, "Yes, Mr. Waldo, I call that good fiddling."

Mamma: "Gracious, child! What on earth are you doing?" Little Lady: "I am watering the flowers on mamma's new bonnet. They looked so dreadfully dry."—*Free Press*.

Buxom widow: "Do you understand the language of flowers, Dr. Crusty?" Dr. Crusty (an old bachelor): "No, ma'am." Widow: "You don't know if yellow means jealousy?" Dr. Crusty: "No, ma'am. Yellow means billiousness."

A little Buffalo girl was not feeling well and it was thought that she might be about to have the chicken-pox. She went to bed laughing at the idea, but early the next morning went into her parents' room, looking very serious, and said: "Yes, it is chicken-pox, papa; I found a feddar in the bed."—*New York Sun*.

Machinery has reached a great state of perfection. We recently, says an exchange, saw some burnt peas put into the hopper of a coffee mill, and in less than two minutes they were occupying a place in a grocery window, labelled, "Fine Old Mocha."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent

publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

HISTORY OF SALT LAKE CITY. By authority of the city council, and under the supervision of a committee appointed by the council and author, Edward W. Tullidge. 8vo. Star Printing Company.

America is the land of startling developments in every branch of her peculiar civilization. The mixed and unmixed elements of her population seem to possess extraordinary and varied characteristics that show the impression of a strange vitality or stimulus imparted, it may be, by the very climate or atmosphere of mountain or plain where those elements are located. One of the most remarkable developments in her life civil and religious is the Mormon community; it has been the wonder of economists and moralists; the sphinx of the orthodox philosopher. Perhaps no human system presents a more complex study than the rise and progress of Mormonism, and he who would attempt to analyze it must be no common litterateur, no looker-on by the way. The history of Salt Lake City involves the history of the people who founded it, and the review of a grand plan of colonization. Mr. Tullidge, to whom the chief merit of preparing this bulky volume is due, has filled important places in the community and been closely related to many critical passages in its life during the past twenty or more years. Hence he writes from the point of view of personal experience, of one who has a liberal knowledge of the *inside* of his subject. It is but natural that he should indicate a partial, defensive feeling for the system he describes; yet Mr. Tullidge has been found among the more zealous of those who would reform the Mormon fabric and give it a character adapted to the principles, civil and religious, that belong to our nationality.

The mass of the volume is devoted to the details of the interference of the United States Government in Utah affairs, and to the measures and counter-measures that have marked that interference during the past thirty years. A series of well-written biographies of the chief men of the Mormon Church, and an appendix setting forth the

character of the journalism of the city, and also its educational, associative and business features add value and completeness to the text. Over forty admirable engravings on steel represent the men prominent in the religious and secular affairs of Utah, all of them as a rule expressing that spirit of firmness and self-confidence that has distinguished the administration of Mormon affairs from the beginning.

NATURAL LAW IN THE BUSINESS WORLD. By Henry Wood. 16mo, pp., 222. Boston: Lee and Shepard.

Law reigns everywhere. No sphere of matter animate or inanimate is free of the operation of law. We recognize effects as the positive consequents of causes, whether moral or physical, and with the causes given effects may be measured by the careful observer or indicated with a degree of accuracy. Here is one leading phase in the operation of law, and from it as a starting point we may proceed to the development of a chain of operations in any domain of human life. Mr. Wood has but applied the principles of scientific philosophy to the social and economic topics that command the earnest attention of the civilized world to-day. He endeavors to show that the disorders, abuses and irritation abounding in different walks of life, especially in the field of labor, are the natural product of the disregard of moral and physical laws. He reasons with the conviction of a truthful, conscientious man, and explains in clear terms certain conditions in the distribution of wealth that are a puzzle and irritation to the greedy socialist and discontented son of toil. We think that Mr. Wood's views are for the most part sound, and we commend him for the optimistic bias that runs through his pages. If there were less grumbling and more honest attention to one's own affairs the general state of society would vastly improve, and a happier moral feeling abound. The law of fair dealing, the law of industry, the law of kindness, if observed, would enhance the wealth and health of all, and ere long bring about that era longed for, described in the quotation from Emerson—

“And each shall care for others,
And each to each shall bend;
To the poor a noble brother,
To the good an equal friend.”

THE ILLUSTRATED STRAWBERRY CULTURIST.—Containing the history, sexuality, field and garden culture of strawberries, forcing or pot-culture—how to grow from seed, hybridizing, and all other information necessary to enable everybody to raise their own strawberries, together with a description of new varieties and a list of the best of the old sorts. Fully illustrated. By Andrew S. Fuller, author of the "Grape Culturist," "Practical Forestry," etc. O. Judd Co., N. Y. Flexible cloth, 25 cents.

The above, copied from the title page, gives a good idea of design and contents of this book. We wrote twenty-five years ago a notice of the first edition thereof, and we are glad to know that its advent awakened an interest in strawberry culture that has never flagged.

So far as regards the modes of culture, there is but little new in this edition, the subject having been fully considered in the other. The chapter on "What varieties to plant" will doubtless meet with criticism. Some will look in vain for the name of their favorite among the approved kinds, for it is impossible to please all. Many are experimenting with seedlings, hoping to produce a better berry than is known, and we hope they may succeed; but there is no reason why inferior kinds should be put upon the market with great flourish of trumpets merely because they are new. If the varieties which the author does not name, with perhaps a few exceptions, were at once swept out of existence and none others allowed to take their places, unless they were really better, it would be a good thing for all concerned.

TRANSACTIONS OF THE NATIONAL ECLECTIC MEDICAL ASSOCIATION, of the United States, for the year 1886-87, including the proceedings of the sixteenth annual meeting, held at the city of Atlanta, Ga., June, 1886. 8vo., pp., 466.

We have received this neatly arranged report of the doings of an energetic body of medical practitioners from the secretary, and find it worthy a careful examination. As a full index accompanies the volume, one has no trouble in obtaining a realizing sense of the work done by the National Eclectic in its last year, and in noting the fact that

its consideration has been bestowed, for the most part, on topics that have a lively interest for medical men to day. Among these are Diabetes Mellitus, Asiatic Cholera, Yellow Fever and Mediterranean Fever, Diphtheria, Spinal Meningitis, Bromide of Potassium, Cerebral Anæmia, Chronic Nasal Catarrh, Tape-worm, Massage, Alcohol in Chronic Diarrhea, Medical Reform, Hygiene in the Public Schools, Successful Hysterectomy, Delusions of Inebriety, Electricity in Medicine, etc.

Many of the more important papers contributed to or read before the association are given at length or in abstract, and the more striking features of their discussion are included. The volume is a useful book to the practising physician whatever his color, because it supplies so much of the essential experience of men, whose high ability in medicine is unquestioned, and whose best thoughts were developed by the earnest spirit that pervaded the discussion of theories and methods at Atlanta. A portrait of the late president of the association, Dr. Henry B. Piper, of Tyrone, Pa., is a fitting frontispiece of the volume.

PUBLICATIONS RECEIVED.

THE NATIONAL TEMPERANCE SOCIETY has just published several one-page hand-bills entitled: Is it Right? The Mother of Crimes. Governors of States on Prohibition—Maine, Rhode Island, Kansas and Iowa. Appeal to The Colored race. The Cup-Bearer (Illustrated). Senator Reagan, of Texas, on Prohibition. The Price of Blood. How to Save the Boys. Price, \$1.00 per thousand; postage 30 cts. extra on a thousand. J. N. Stearns, Publishing Agent, 58 Reade Street, New York.

THE DISCOVERY OF THE NATURE OR PROXIMATE CAUSE OF INSANITY. By "Invenendus." England; paper. pp. 37. Price 25 cts.

The writer of this claims that he has found a deformity or malformation of the neck and shoulders to be invariably associated with insanity, and its degree of exaggeration indicates the stage of the mental disorder, and feels warranted in believing, that the mental disorder is dependent upon the physical distortion. This deformity has

an influence upon the walk and attitude of a person, imparting a peculiar manner that is unmistakable to one who has had a little experience in the observation of lunatics. Some alienists may grant the physical malformation, but deem it an effect not the cause of insanity. Yet "Inveniendus" appears to us to have written a pamphlet that is not without interest to the student of insanity, and to many who deem themselves acquainted with the phenomena of a disordered mind, there are points in his laboriously written essay that are worth more than passing notice.

CURRENT EXCHANGES.

Christian at Work; Weekly. J. N. Hallock, New York.

Prairie Farmer; Weekly. For the farm, orchard and fireside. Orange Judd, editor. Chicago.

Christian Herald and Signs of Our Times. Weekly. Good religious matter for the reading of all classes. Bible House, N. Y.

Wallace's Monthly, which is devoted to domesticated animal nature, supplies information to stockmen and to farmers in general.

St. Nicholas for May, delightful as ever to the young mind, has here and there wholesome reading from experienced writers. For instance, *Historic Girls*, *An Only Daughter*, *Child Sketches*, from George Eliot. We notice that the publishers must have some "war" stuff among its pages.

Lippincott's Monthly comes with a novel entitled *The Deserter*; following that, *Some Experiences of a Reporter*, *Social Life at Vassar*, *Book Notes*, etc. The "novel" idea, while it adds to the bulk of the monthly, appears to reduce the variety of the May list of contents considerably.

Scribner's Magazine for May has for its frontispiece a view of an iron-clad belonging to the Italian navy; following that is an interesting and well-illustrated article on, "The Development of the Steamship," next is a poem entitled, "The Tide," "The Forests of North America," and "An Ocean Graveyard" are illustrated. Besides these a collection of "Unpublished Letters of Thackeray," "The Story of a New York House," and "An Irish Wild Flower," will please the reader.

The Popular Science Monthly, now conducted by W. J. Youmans, brother of the late editor, and for years his editorial assistant, has in the May number, the following notable topics: *The Natural Versus the Supernatural*, *The Sun's Heat*, *Megalithic Monuments*, *Influence of Snow Masses on the Planets*, *Hygiene as a Basis of Morals*, *Hats as a Cause of Baldness*, *A Sketch of James Ferguson*, with a portrait. The old progressive spirit of the monthly is sustained. D. Appleton and Co., N. Y.

The May number of *Harper's*, includes a discussion on the Recent Movement in Southern Literature, *The Three Tetons*, *Acting and Actors* or comments and reminiscences relating to the French drama, mainly, *Through the Caucasus*, *The American Mastiff*, all of which topics are profusely illustrated in the excellent manner of the magazine.

The Eclectic Magazine of Foreign Literature for May has—*Wealth and the Working Classes*, *The Effects of Civilization on Women*, *Home Rule and Imperial Unity*, *The Joy of Living*, *The Genesis of the Elements*, *The True Story of "Pickwick,"* *General Lee*, *The Minds of Savages*, and these papers with a well-selected miscellany form the leading features.

Home-Knowledge is a fresh candidate for public patronage, and as it relates to the subject of health, for the most part, and treats that in a simple pleasant style, it will find readers. The editor, Dr. R. A. Gunn, is a gentleman of much professional and social experience and competent to judge the needs of people. We notice within the covers sundry advertisements of medicines allied more or less to the name of Gunn. Price, \$2.00 a year. New York.

Journal of Reconstructives: Late number contains much information relating to foods and nutritive processes. Some of the articles from professional sources appear a little extra technical and stilted; but this may be due to the inexperience of the writers as authors. Specially good features are the itemized departments of *Medical Progress* and *Microscopy*. J. H. Gunning, M. D., editor, New York.

"*Dress*," is the short title of a new magazine to be issued in May. It is to be devoted to the discussion of the practical and the beautiful in women's and children's clothing, physical culture, hygienic and kindred subjects, and is to be conducted by Annie Jenness Miller, well-known as a lecturer upon ideal or correct dress. The Gallison & Hobron Co., Publishers, New York.

The Century has an unusual variety of reading in its May number, as will be seen in the following topics drawn from the index: *Washington Irving*; *Finding Pharaoh*, *Pharaoh the Oppressor*, and *his Daughter in the Light of their Monuments*, *Zweibak* or *Notes of a Professional Exile*; *The Hundredth Man*—VI. *Amiel*, *Among the Apaches*, *The Chemistry of Foods* and *Nutrition*, *Personal Recollections of Louis Blanc*, *Abraham Lincoln*—continuation, *Keats*, *The Campaign for Chattanooga*, *Memoranda on the Civil War*, etc., and also much seasonable comment in the editorial departments. Century Co., N. Y.

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

A REPOSITORY OF
SCIENCE, LITERATURE AND GENERAL INTELLIGENCE.

DEVOTED TO

ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE MANKIND, SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

Embellished with Numerous Portraits and other Engravings.

VOL. LXXXV. OLD SERIES—VOL. XXXVI. NEW SERIES.

JULY TO DECEMBER, 1887.

H. S. DRAYTON, A.M., M.D., EDITOR.

NEW YORK:
FOWLER & WELLS CO., PUBLISHERS, 775 BROADWAY.
1887.



“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionnera jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”—JOHN BELL, M. D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopædia Britannica*, 8th Edition.

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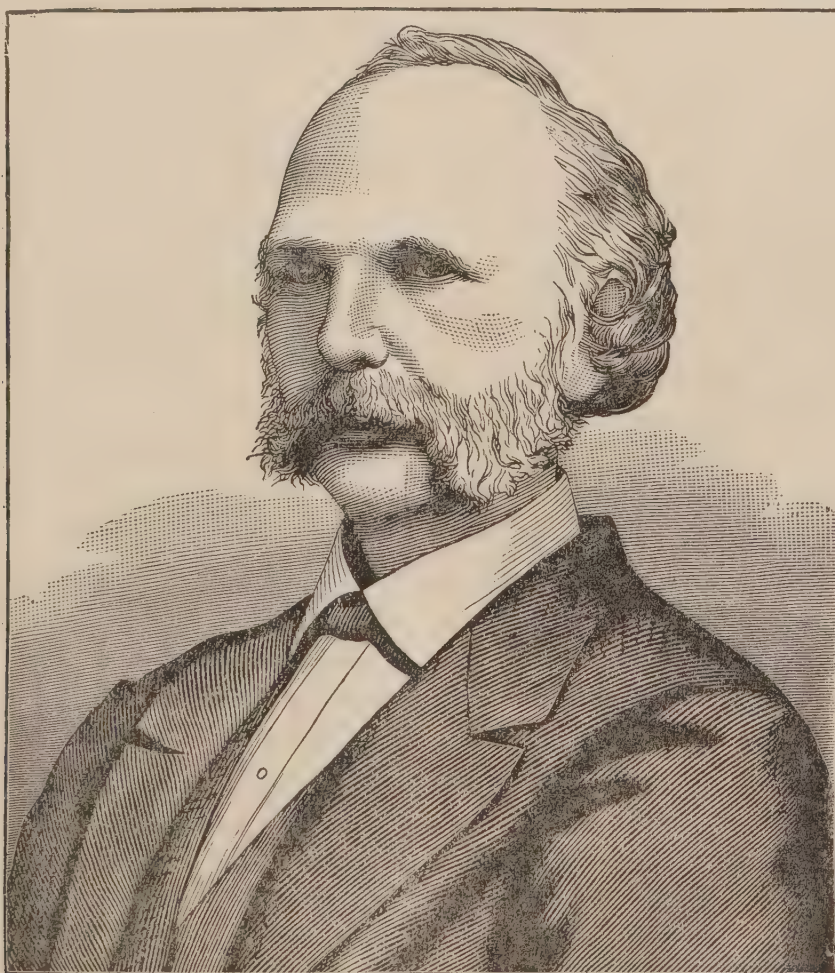
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THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 85. 1887.

NUMBER 1.] July, 1887. [WHOLE No. 583.



JOHN GODFREY SAXE.

JOHN GODFREY SAXE—the poet, lawyer, editor and lecturer, was buried in Greenwood Cemetery, on the afternoon of April 4, 1887. Nearly thirty years ago, when he was in his prime, I heard him lecture in a village in Herkimer Co.,

New York. He had two topics. One was "The Money King," the other "Poetry and Poets." He had traveled all day, by stage and rail, and was weary, but a cup of tea and the magnetic presence of appreciating friends put him in the mood of speaking with spirit and with force. His lectures (he gave two at one entertainment) were elegant and polished specimens of wit and elegance. Touches of wit, humor, pathos and philosophy kept his auditors wide-awake for two hours or more.

Mr. Saxe wrote stories and poetry long before he attempted to air his speech in public on the lecture platform. He sprang on the back of his Pegasus with sportful sagacity, pricking the flanks of his winged steed with the spur of his wit. The readers of his comic verses and essays were inclined to encourage him with cheers when he ascended the flowery mountain singing his happy songs. As a lecturer, when he delivered his "Money King," he overmastered the dignity of the coldest critic, and discomposed the gravity of the most fastidious foggy in the audience. Mr. Griswold, whom Mr. Saxe spoke of as "the dry nurse of the poets," speaks as follows of the subject of this sketch: "John G. Saxe was born in Highgate, Franklin Co., Vermont, on the 2d of June, 1816. His youth was passed in rural occupations until he was seventeen years of age, when he determined to study one of the liberal professions, and with this in view he entered the grammar school at St. Albans, and after the usual preliminary course in the college at Middlebury, Vt., he was graduated a bachelor of arts in the summer of 1839. He subsequently read law at Lockport, New York, and at St. Albans, Vt., and was admitted to the bar at the latter place in September, 1843."

"I remember," said the critic, "that when Mr. Saxe was in college, he was well-known for his manly character, good sense, genial humor, and for an undergraduate large acquaintance with

literature. "Besides writing with such delightful point and facility," observed a friend of his, "he is one of the best conversationalists, and wastes more wit in a day than would set up a 'Yankee Punch,' or a score of 'Yankee Doodles.' He is a good, general scholar well-read in the best English authors, and, besides his comical compositions, has produced many pieces of grace and tenderness that evince a genuine poetic feeling and ability."

At the close of the lecture, to which I alluded in the beginning of this sketch, I met him with others at the fireside of a friend. The *Atlantic Monthly* was the text of his fireside discourse, in which he referred to the article on Douglass Jer-rald which had just appeared in that magazine.

Mr. Saxe was a well-formed man over six feet in height, of commanding but pleasant presence. He had a full, round, baritone voice, his accent was clean cut and distinct, and his gesticulation graceful and natural. His dark brown hair was thin in front, a prophesy of baldness to come; his forehead broad and high, showing a fine development of the poetic and perceptive faculties; eyes blue and electric.

Mr. Saxe excelled as a writer in burlesque, satire, humor, and wit—the expression of faculties on the confines of ideality and comparison; indeed his mental make up embraced the domain of eloquence and poetry—the region of brain to which the world is indebted for many of the finest specimens of lyrical expression, and which has furnished from the times of Juvenal much of the noblest and most beautiful illustration of creative energy. His verse is witty, nervous, brilliant and generally carefully finished. Here is a specimen of his command of language:

"Singing through the forests,
Rattling over ridges;
Shooting under arches,
Rumbling over bridges;
Whizzing through the mountains,
Buzzing o'er the vale,

Bless me, this is pleasant,
Riding on a rail.

The entire composition is an echo and description of a crowded railroad car.

The longest of his productions is entitled, "Progress, a Satire." His "New Rape of the Lock," written in 1847, and his "Proud Miss McBride," written the year following, are in the vein of Hood, full of verbal felicities, laughing humor, and touches of pathos.

Mr. Saxe secured a competence by his labors as a writer and lecturer; his law practice was not of much account. For several years he was a contributor to the columns of the *New York Ledger*, *Harper's Monthly*, the *Atlantic*, and other publications. During the last five years of his life he lived in Albany, the unhappy victim of mental and physical depression. From 1869 to 1881 he lived in Brooklyn, but his life was overshadowed by great affliction and sorrow, for it was there he lost his wife and three daughters. After their death he lived the life of a sad and broken hearted man, refusing the consolation of friends who desired to visit him. The reader can imagine, better than I can describe, his great grief, when I state that first his wife died; shortly after his daughter Laura died, two months after his daughter Hattie died, a little later his daughter Sarah died. Thus bereft he went to Albany to live with his son Theodore, who died three weeks after the arrival of his father. Utterly sorrow-stricken, he moved to the residence of his son Charles, where he died on the 31st day of March. About twelve years ago Mr. Saxe was the victim of a railroad accident. The shock given by the upsetting of the train, which brought him to death's door, had a disastrous effect upon his sensitive and nervous nature, and that was the beginning of an illness, resulting in fits of melancholia.

The following sonnet, written by Mr. Saxe many years ago, will be a fitting

close to this sketch. It is entitled "Be-reavement":

Nay, weep not, dearest, though the child
be dead,
He lives again in Heaven's unclouded
life
With other angels that have early fled
From these dark scenes of sorrow, sin
and strife.
Nay, weep not, dearest, though thy
yearning love
Would proudly keep for earth its fairest
flowers,
And e'en deny to brighter worlds above
The few that deck this dreary world of
ours;
Though much it seems a wonder and a
woe
That one so loved should be so early lost,
And hallowed tears may unforbidden
flow
To mourn the blossom that we cherished
most,
Yet all is well, God's good design to see,
That where our treasure is our hearts
may be.

GEORGE W. BUNGAY.

A Golden Rule of Three.

"LOVE ALL, TRUST FEW, DO WRONG TO NONE."
Love all, aye, *all*!
Not only those who love, but those who
hate.
No less will do, would you fulfill the great
Commandment, test of heart regenerate
In Christ. Love all.
Trust few, but *few*!
Not all who seem your friends are such at
heart;
Fair courtesy is oft a useful art.
"Most men are bad." Act thou a prudent
part,
And trust but few.
Do wrong to *none*!
"Bear and forbear!" a maxim good and
grand.
The bravest he who can himself command,
Who, fearing sin, restrains his heart and
hand.
Do wrong to none.

H. A. S.

THE FUTURE OF PHRENOLOGY.

IT being no longer questioned as to the truth of Phrenology by the most eminent men, the thought occurs at this time, what progress will it make and what beneficial results will flow from it in the future?

Since the days of Gall, Spurzheim and Combe, much has been written upon this fascinating subject, elucidating its practical utility, and it is cheering to note the spirit of investigation that has been manifested on all sides. A rare spirit of observation is paramount to all theories in regard to this man-unfolding science. How worthily did the immortal Gall rise superior to the anatomists of his time, who ridiculed, his system by defending his mental philosophy in an array of facts drawn from nature that was overwhelmingly convincing! And when some learned metaphysician would fire at him some abstruse reasoning, he invariably retorted with the axiom: "No difficulty whatever can destroy a fact." So the founder of our science has taught us a lesson of patient observation a thousand times and more repeated on man and brute animals. The gifted Spurzheim and the learned Combe were also famous and shining lights in the promulgation of the principles of Phrenology. Their master-pieces of wisdom and scientific research will live as long as the English language. The progress therefore which Phrenology will make depends upon its advocates putting forth earnest endeavors in searching the vast laboratory of nature, in bringing forth more facts, in order to show the masses the practicability of the new mental philosophy.

Every city should possess a phrenological cabinet of specimens, and certainly every academy of science in the land should have on exhibition human and animal crania in order to promote a spirit of observation, thus teaching men and woman to know more of themselves, by studying anatomy, physiology and

anthropology. God-speed the day when active measures will be taken to educate our children in the science of the human mind. I know men who are called great, because they understand ant life and bee life, and have produced volumes upon their habits. I know men who are called great who worship horses, who write about the stars, who roam the woods seeking birds-nests, collecting flowers, insects or shells. I know men who are called great who lecture upon icebergs and rocks, but greater far is he who is a profound student of human nature, who studies *Man*, the image of God. He who studies the intricacies of the human brain and mind, yes, he who shall do these things well, occupies a position which no other field can afford.

It remains for those who have been educated as practical phrenologists to go forward with zeal and earnestness, winning converts to the great cause, and thus implanting ideas of right that will grow and blossom and bear fruit that will benefit mankind.

Phrenology is not an old science, and in its infancy it foretells of greatness which is sure to come in its manhood and old age, if its followers continue uninterruptedly their investigations. The beneficial results which are to be felt in the near future are many and great. Unborn millions yet to come will study it, and be wiser than we. They will read *Temperament*, and consequently *Character* at a glance! They will read predisposition to disease; they will look through and through the human soul; and the minutiae, the details of human life will be unfolded by master-brains and eloquent tongue. Oh, shall we not labor in the field more zealously while it is yet day and the night afar off? Let us follow in the footsteps of those grown gray in the service, who have contributed to human science so much that it is beautiful, useful and eminently practical.

DR. F. W. OLIVER.

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 19.

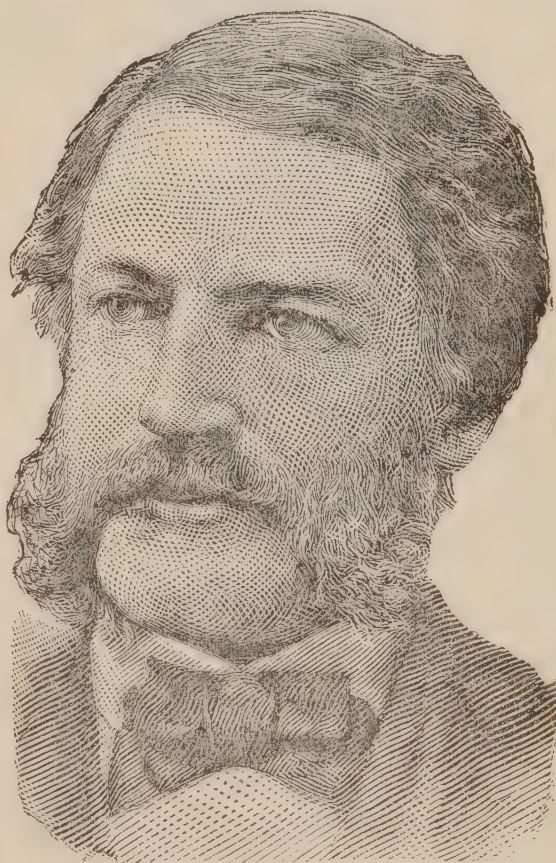
SOME GROUND PRINCIPLES—SPECIALTY OF FUNCTIONS.

IT is but natural to think that such marked differences of character as I have been pointing out in our past interviews must have something to do with the appearance of the persons in whom they are found. Not one of you, my young friends, I am sure, expects to see the same kind of a look in the faces of two men, one being kind, happy, good-natured in disposition, the other sharp, gloomy and complaining. You feel drawn at once toward the first, before he has opened his mouth, while you wish to avoid the second as soon as you have seen him. You all have learned pretty early that the way in which people look and act depends upon something behind—a something called *mind*.

This mind is not a simple thing, like a nail, but is compound, made of many parts. In fine carpenter-work, such as you can see in the cabin of any of the elegant steamboats that sail on the Hudson, or Ohio, or Mississippi river, there are pieces of different sizes and kinds, each used for a particular purpose—for use or ornament. So in the mind there are many parts of different kinds. They are called *faculties*, and are all as necessary, as the pieces in the woodwork, to make the mind complete. But many of these faculties we have been examining, and you must by this time have a good idea of their different influence on our conduct and how important they are to character.

How many of these faculties there are altogether I can not say, but upward of forty have been carefully defined as having special qualities and effects—and in your companionship with brothers, sisters, friends and all, you soon discover who has more of this or that, because it is shown clearly in the way they talk and act. Mr. Smith, you say, is stingy and afraid to spend a cent—he has very strong Acquisitiveness. Mr. Jones is just the

other way; is too free with his money and don't save any. He hasn't enough Acquisitiveness for his good. Mr. Brown is quarrelsome; takes fire at every little thing and seems ready to fight everybody. He has too much Combativeness. Mr. Snyder is a weak, timid fellow, swallows an insult, and keeps out of the way when there's any quarrelling, and don't stand up for his rights. "He isn't half a man," you say, and it is because he

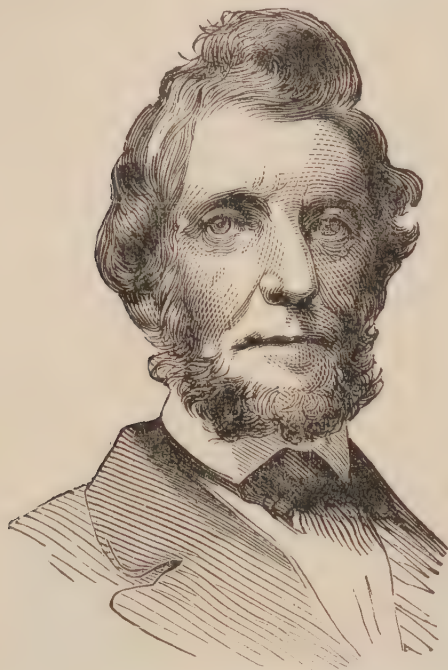


AN ATTRACTIVE FACE.

hasn't the pluck Combativeness gives one when it is strong. Then there's Mr. Thompson who is great on joking; makes puns and tells funny stories, and sets everybody laughing—while Mr. White is very solemn, never sees the point of a hit, and thinks jokes silly gabble. One has the faculty of Wit pretty active and the other is wanting. So I might go on through the whole list and illustrate what the great English poet means by saying that men "play many

parts," and show why they have so many sides to their character.

Like the fifty or more strings of the piano, each of the faculties has its own



A REPULSIVE FACE.

sound or note, but the piano strings must be well tuned or they will not sound clearly and harmoniously when struck by the performer. So the faculties of the mind must be trained and brought into activity by education and association with each other, if they are to show harmony and balance in the character. They, in their combination or working together, make *character*, and it is according to the excess or overaction of this or that one that individuals have their peculiarities.

Perhaps you will say, "People are all so different; we don't see any two alike; can it be that only forty faculties can make all these differences?" Yes, indeed. If you have gone so far in arithmetic as to understand the various combinations a certain number of things can be made to form, you will, after a little thought, see that even twenty-five faculties, affecting each other in all the different degrees of strength of which they are capable, would render the disposition of each person in a hundred millions different

in some way from every one else. You are familiar with the "word-game," I am sure, that gives a pleasant and useful entertainment to a company of old or young persons. A word like climate is taken, for instance; only seven letters, yet with two or more of these seven letters you can spell fifty common words, besides arranging the letters themselves in over five thousand different ways. Thus you see if we had but seven mental faculties it would be possible to have a considerable variety of character in any community. But when it comes to the consideration of thirty or forty organs and faculties working together, some strong and some weak, some educated and others uneducated, you will certainly see that the variety of character they produce is beyond all estimation.

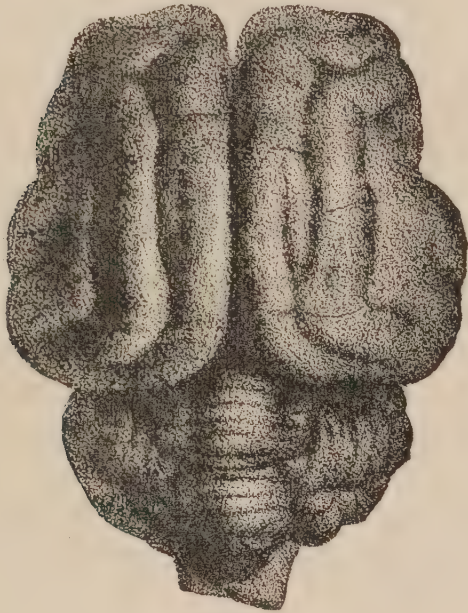
The brain is the organ through which the mind acts; but if I should say that every one of these forty organs of the mind used the whole brain every time it was in operation, you would be likely to



VIEW OF THE HUMAN BRAIN SHOWING CONVOLUTIONS.

think that to be a very odd thing, because they are so different in their nature, and might ask me why we don't

use the heart for breathing and digestion as well as for pumping blood through the arteries and veins, instead of having a special apparatus for each of those bodily functions? But I should not say that is the case. It was possible for the Creator to have made the nose serve for hearing as well as smelling, but he did



A CAT'S BRAIN.

not ; and in setting up the whole machinery of the body he gave to this muscle, that nerve and that bone a certain kind of work or duty and no other, and did not design that a muscle should do the work of a nerve or bone. So in the economy, as we say, of the brain it has been found that it is made in a strangely complex fashion—the outer parts being folded or plaited together, divisions running here and there in all directions, and the whole arrangement suggesting that it is a compound organ, made up of many parts to fit the many parts of the mind. Thousands of years ago learned men believed that the brain was divided to suit the faculties of the mind as they understood them, but it was not until within a hundred years that the fact was really proved, and special parts discovered by experience and study to be the *centers* of the faculties of the intellect, the feelings and sentiments. I think you can understand now quite well why the functions we have been talking about should

be given particular parts of the brain. Here is a picture of the human brain—what a curious looking thing! you may say. Yes, it is very curiously organized. Did you ever see the brain of a rabbit or squirrel? Of course it is very much smaller than that of man, but the most interesting part of it is its smoothness, as shown in the picture. Instead of having a surface that is folded and corrugated, you see that is quite smooth. Now look at the other picture, which is that of a cat's brain. You see it has a surface that is divided quite regularly into folds. What does this mean? Simply this, that the cat is much more intelligent than the squirrel, has more mind, more faculties, is more highly or-



A SQUIRREL'S BRAIN.

ganized. Turn back to the human brain and you see at once that the surface is very much more divided up than the cat's brain, and if you were to examine the brains of dogs, horses, and such monkeys as the orang-outang or chimpanzee you would find them more convoluted—that's the term given to this peculiar structure of the brain—than the cat's brain, but not so much as man's.

These folds are made up of layers of nervous matter, two kinds—fibers, which are white, delicate threads, so fine that a good microscope is necessary to give a fair idea of them, and gray cells, which are very small, but so numerous that the color is distinct. The more folds and the deeper into the brain they go the more of these gray cells there are ; and it is claimed

that strength of mind and power of knowledge depends upon them. I am not able to explain why this is so, any more than I could explain why the food you eat turns into hair in the scalp and into nails at the finger-ends, but it is true, in a general way, that the more brain a man has the more intelligent and smart he is. You expect a big man to be stronger than a small man, don't you? Sometimes a small man is very strong for his size—and you will find a reason for it in his solid, hard muscles, and habits of exercise; but if a big man comes along with good hard muscles, that have been used to exercise and gymnastics, the small man wouldn't stand much of a chance in a wrestling match. So large-brained men, as a class, have more ability than the small-brained.

INHERITANCE AND PECULIARITY.

I have already pointed out several things that have to do with the growth of the brain and the exercise of its different parts, or organs, and which go a great way toward explaining why some people who have large heads don't appear to be good for much, and are really not so clever and useful as many with heads by no means as large. Food and habits and every-day companions have much to do with making us clear-headed, active, good-natured, and useful men and women; we can not help being affected, more or less, by our ways of living and our society. Some learned persons believe that we are slow or quick, in our thinking and learning, speaking and doing because we have been educated and trained in that way, and have gotten into the habit. Some believe that a man is good or bad because he has been brought up well or badly; if bad, he must have had wicked and low surroundings, and so couldn't help going into evil ways. I don't believe that our characters are dependent upon our education, our training, our companions altogether, but that our brains and bodies have a special condition or constitution that is

born with us, which makes us like our parents, and will always show somehow in our life no matter what our education and surroundings. We look like our parents and are known to belong to such and such a family because we have the features, the eyes, nose, mouth, chin, cheeks, forehead, hair, etc., that belong to that family. It is a law of nature that we should have certain family types of face and form. Would you not think it strange that a human child should not resemble his father and mother when the young of animals resemble their parents? We may be more like one parent than the other, and most of us are more strongly marked by features and traits belonging to one side. To ask Why, opens a branch of scientific study that is very extensive and very interesting, and which you ought, before you are much older, to know something about. In the treatises on physiology and heredity you will find instruction relating to it.

If we are like our fathers and mothers in appearance and disposition we must have the mental constitution that is theirs, and that through the brain must give some indication of its kind. I know of the descent or inheritance of a quality that four people show in a marked way. First, there is the great-grandmother, then her son, next grandson and then great-grandson. I suppose the great-grandmother got it from her father, who was a prudent, economical man, according to all accounts, and then gave it to her descendents. This quality is a disposition to save money, and it is shown in the heads of all of them, the lower part of the "temples," or the side-head in front of the ear, being plump and round. The celebrated Adams family, of whom you have read so much in the history of our nation — John Adams, John Quincy Adams, and Charles Francis Adams were all distinguished for firmness, independence, self-reliance and emphasis. These traits are seen in their

writings and speeches very plainly. Well, their heads are alike, the crown being high and massed in that part where the organs of Firmness and Self-reliance are believed to lie.

As a rule, I think that we inherit the stronger organs and characteristics of our parents, and if we do not in some respects show as much of this or that one particularly it is because we have inherited another strong faculty from one parent that has a restraining influence upon the strong faculty or faculties that we have inherited from the other parent. Besides, our health, the condition of our body has a great deal to do with the action of our faculties. A weakly, sickly constitution can not give strong faculties the support they need to act in a free and vigorous manner; hence in such a case the character will most likely appear to be one-sided, peculiar and odd. A man in good health, with a vigorous stomach, lungs and heart, supplies all parts of his

body with healthful blood; the brain, that requires five or six times as much blood as any other organ, gets all it needs, and its organs therefore being fully sustained, his mind acts with promptness and ease. But a sickly man can not give the brain all the blood necessary for the free action of every part, and the large, strong organs have a tendency to take the full share, leaving the small and weaker to take up with the very insufficient leavings. This makes it bad for the man; he finds it very hard to think and speak as he would, and if he is engaged in work that requires a great deal of thinking and study it is done only at the cost of much weariness and pain.

You should remember that a sound body is a very important thing to brain and mind, and unless one is really strong and healthy his mind is not expected to be in all respects sound, well-balanced and equal to all the occasions that would naturally fall to him in life. EDITOR.

A SUMMER ON PUGET SOUND.

AFTER three days' steady sailing from San Francisco we touched at Victoria, Port Townsend (the port entry into the sound) and finally reach our destination, Seattle, the following morning. This town is situated on Elliott Bay, one of the best harbors of the sound. Our first view was of "a city set on a hill," surrounded on three sides by illimitable forest, and at its foot "beats the restless pulse of the ocean as it reaches it with its majestic Puget Sound," so named for an officer in Vancouver's expedition in 1792, and called by Seward the "Mediterranean of the West."

A carriage soon rolled us away through Front street, which overlooks the water, out into the suburbs where city and country are strangely blended. White clover grew everywhere; ferns and wild blackberries were in wildest profusion up to the very doors, and the air was heavy with the fragrance of flowers,

firs and cedars. Stumps, logs and a few remaining trees showed that but recently this part of the city had been reclaimed from the forest, while only a little further on one might become lost in the woods within half a mile of home. Here we determined to remain for a time, surrounded by all this wealth of luxurious verdure, and enabled by location to have an unobstructed view of bay and sound and every craft of every kind which passed to and fro coming within our range of vision. On the opposite shore the fir trees grow quite to the water's edge, while beyond, away to the south, eighty miles distant, is Mt. Rainier, 14,444 feet high, only appearing to be just beyond the head of the bay, and perfectly white from base to peak the whole season through. To the west is the low range of the Olympic Mountain, also wearing a mantle of snow, while at our feet in the flower garden

grow magnificent old-fashioned flowers, such as our grandmothers grew—large velvety pansies in all their various hues, each one of which seemed to be looking directly at you with its one eye, sweet-williams and honeysuckles, dahlias and peonies, pinks and fuchsias, and hosts of other flowers; while in the very midst of these grew, now and then a fern, as if to remind them that they had not wholly given possession to what was once their unbounded right, just as the Indians strolling about the streets proclaim the fact that existence can not be denied them even though their paler brothers are in possession of the soil.

The most important industries of the Territory are the production of coal and lumber. The only railroad of Seattle leads to the coal mines forty miles distant. It was on a trip to these mines that we first saw the effects of the "rise and fall" of Seattle. The end of the bay extending beyond the town is "staked out" into city lots—as though there were not land enough to build on! These lots are fenced as it were with piles driven in and strips of timber nailed on, which distinctly mark the streets; but alas for human aspirations, they are not in demand. One man more enterprising than his fellow creatures took a claim about a mile and a half from shore and has a house on stilts as a monument of his ambition, which has, however, been diverted into other channels, for the claim is now deserted. Such is the effects of a "boom."

The way to the coal mines lies along Cedar river—a small stream clear as crystal, its bottom paved with pebbles—which the track frequently crosses. An occasional small farm, composed chiefly of potato and hop fields, is seen, but nearly all the way is timber, heavy and large, some maple and alder but mostly cedar and fir. The view is always fine, marred only by the marks of fire which everywhere precedes the work of man. Many of the forest giants—stand in their strength, their heads

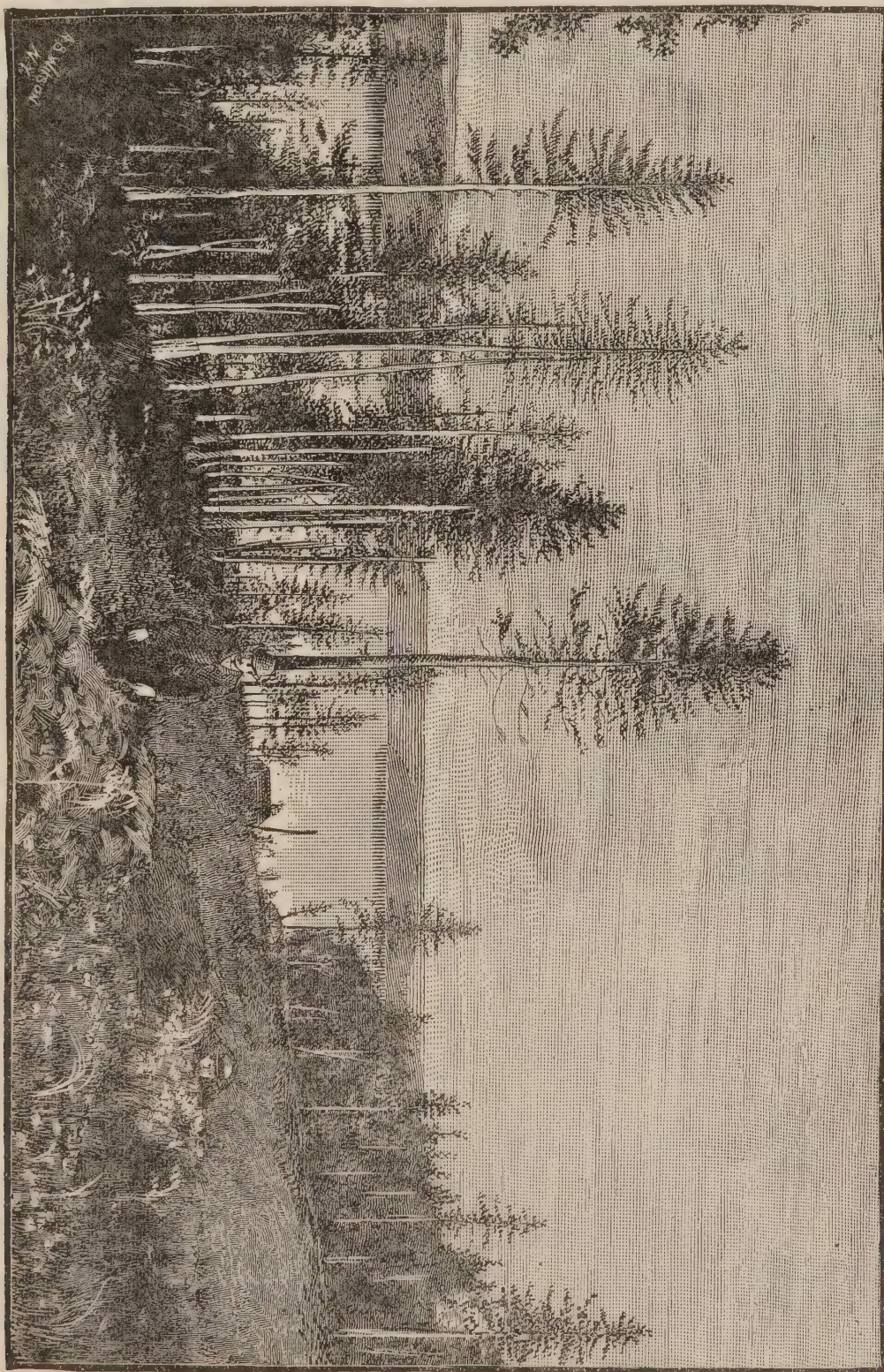
proudly lifted above their companions, regardless of their charred and blackened trunks, as though defying the destructive agencies which sought to level them to the earth. Suddenly we come upon a little lake, appropriately called the Lake of the Wilderness, whose transparent surface reflects the numberless sentinels which shield it from view and soften the sharp outlines by an occasional ripple. Surely they have done their work well, for until the steam-engine penetrated the forest one might have passed within a few feet of it without being aware of its existence. Some of the party got off here and boarded the train again on our return with a goodly supply of trout. The way in many places is lined with vivid red berries growing on low bushes, alternating with the pure waxen white of the syringia, and the trees are as full of moss as the ground is of ferns, the thickest places being literally covered with it, while long festoons depend from the branches reminding one of Florida scenes.

Suddenly a succession of quick, sharp notes from the engine, which echoed and re-echoed through the woods, caused us to look ahead; three deer standing on the track just in front of us gazed in open-eyed wonder at the approaching train and then plunged into the forest. The scenery around the mines is very romantic. At the Black Diamond mines is another lake, similar to the Lake of the Wilderness, and in close proximity is a cranberry marsh and numerous springs of clear cold water.

By the seventh of July all the surrounding beauty was obscured by the smoke from the forest fires which are set out as soon as the spring rains cease, to burn over ground which the owner intends clearing, and then left to go on in their work of destruction until autumn rains extinguish them. The sun either looks like a piece of old tin suspended aloft, or is not seen at all, and by the seventeenth the smoke was so dense that vessels were unable to land without the

assistance of fog bells. Occasionally a sound steamer, unable to find its way ran ashore but fortunately without serious results. We were told by a captain that the smoke extended about thirty miles

trees, the snow-white range of mountains for the first time in eight weeks. We could now see whole fleets of fishermen's boats and Indian canoes, some with trolling lines, others with nets, for it was



A GLIMPSE OF LAKE WASHINGTON.

out to sea, and was nearly as dense as on the sound.

On the eighth of September it rained ! The clouds cleared away, likewise the smoke, and we again saw the water, the

the beginning of the salmon season. These salmon exhibit a strong penchant for gymnastic feats, throwing themselves into the air, and in descending often strike the water sidewise, causing a

sharp report much like that of a pistol.

By this means they are enabled to go up stream without difficulty—which they do in infinite numbers, literally filling the rivers and their tributaries—clearing falls or rapids with incredible accuracy. There is a flash in the air, a gleam of white, and the fish has cleared the obstruction which barred his way. A photograph of “a run of salmon” was secured and sent to the fish-commissioners of Europe, who returned it with no other comment than that it was a fiction, such numbers being utterly impossible; however it is not only possible but a frequent occurrence. The already goodly number of Indians was augmented at hop-picking time by others from Cape Flattery, who came the entire distance in their canoes. Finding the hops still unripe they turned their attention to salmon fishing for the canneries and for drying. They usually select a camping place at the edge of the water and almost live in their boats which are hewed out from solid logs. They sell fish, baskets, mats made of the cattail plant, bows and arrows, the latter tipped with bone, shells and curiosities, or exchange them for cast-off clothing. They dress almost entirely in the superannuated garb of their white brothers (except the little folks who are either clothed in natural epidermis, or a single shirt-like garment remarkable only for its brevity) and *beautify* themselves by wearing earrings made of shells; many of both sexes go so far as to insert them in their noses. The only outgrowths of civilization—that they have adopted so far as we were able to observe—was cigarette smoking and chewing gum, and to these must of course be added, whiskey drinking. They are careless and improvident, giving no thought to the morrow, and so badly are they housed, clothed and fed that their numbers are rapidly decreasing, and they will doubtless become extinct in a few generations.

There are but two pleasant drives out

of the city, as every road has to be hewed out of the forest at an enormous expense. One of these leads to Lake Union, a picturesque little lake just out of town; the other, a broad, well-graded avenue, to Lake Washington, much larger and more beautiful. Our first view of it was in the soft, mellow twilight, just fading into a softer moonlight. A picture of more transcendent loveliness can hardly be imagined—lying below us in placid serenity, walled in on all sides by the tall sombre pines, and not a mark to indicate that man had ever desecrated its quiet sanctity. The lake is twenty-five miles long and from three to seven miles wide, and quite as beautiful and picturesque by sunlight as by moonlight. To the right Mt. Rainier lifts its pure white dome above its mantle of clouds, without which it is seldom seen, and the nearer landscape is parted at its feet as though nature intended it to look its best even from this distance. Many artists select this view of it to transfer to canvass, deeming it one of the finest. In front of the observer, or to the east, is an island which prevents a full view of the lake, and above and beyond its fringe of pines is a low range of mountains—the Cascades. Deer hunting on this lake is a favorite pastime, although, for that matter, they are found anywhere, the markets being well supplied with venison.

The largest saw-mill in that part of the country is located on Bainbridge island, ten miles distant from Seattle, and is one of many from which lumber is carried to all parts of the world. We saw them getting out timbers twelve by fourteen, ninety feet long, and were told by the men that they had just filled an order for some eight by sixteen, one hundred and thirty feet long. They are too large for ordinary handling and are loaded on to the ships by steam. The capacity of the mill is two hundred and fifty thousand feet per day.

There is also some ship building done, and masts and spars, like the lumber, go

to all parts of the world. The yellow pine, used for the latter, often reaches a height of 300 feet.

Boating here takes the place of driving in other cities, and, in connection with fishing, constitutes the pastime of the place. It was when whiling away an idle hour in this fashion that our last, best view of Rainier was seen; never had it seemed so near. Great fleecy clouds which had been floating softly about all the afternoon, snowy-white in the sunlight but silvery-grey in the shade, now hovered over the mountain top, one side of which was sombre and white, like a majestic iceberg, and the other tipped with gold from the descending sun. As the sunlight slowly faded from forest and sound it seemed to concentrate all its powers on the distant view, turning the clouds, which were slowly settling, to rose and crimson and gold, filling the heavens with an indescribable glory which gradually softened and faded until, with the last faint rays, the clouds lowered like a benediction, shutting from

our enraptured gaze the last glimpse of the mountain. The curtain had fallen, the vision had vanished and night had come.

The showers, which had for some time been frequent now became chronic; the moss on the roofs evidently vying with the lawns and growing quite luxuriantly. It even grew on the corrugated iron roofs of the mills. There was scarcely a day without its weeping skies; consequently we longed for other scenes, and, boarding a steamer bade a reluctant farewell to Seattle and its environs. As we sail up the sound wooded point succeeds wooded point on either side, the waters ramifying into numerous bays and inlets, nearly all of which afford safe harbors for the largest vessels. There are many beautiful islands, and for two hundred miles the surroundings are picturesque in the extreme. We make a few short stops, pass through the strait of Juan de Fuca and are again in the broad ocean, carrying with us many pleasant memories of our summer on the sound.

M. C. F.

HISTORY OF BLOCK-BOOKS.

THE term block-book is used to define a book printed entirely from engraved blocks, the earliest form of printed books. Their invention has been ascribed by some bibliographer to Koster, warden of the Cathedral Church at Harlem, who, one day, walking in the woods, amused himself by cutting letters in the bark of a tree and taking impressions from them for his children, obtained his first suggestion of printing. Faust and Gutenberg are said by some authorities to have made their discoveries by being employed as assistants by Koster. So great is the obscurity about the origin of the first printed books, it has not been determined with certainty, as to whom the credit rightfully belongs. The Germans claim Gutenberg, the Dutch reject him, charging him with stealing the invention, and claim Koster. We need

not take sides with either, but simply gather from various writers that which is adapted to our present use. To De Vinne's elaborate work we are chiefly indebted.

The first block-book of which we have any history, can not be traced back farther than the fourteenth century. At first they were books of pictures only, with a few words descriptive of the illustration at the foot of the page, or in cartouches proceeding from the principal figures. Next, they were made with full pages of text which was usually printed on the page opposite the picture, and in Latin. In the fifteenth century, block-books were very numerous. Lotheby, in 1858, described in the *Principia Typographica*, twenty-one block-books of distinct works, and several of them went through four, six and eight editions; but

of the number published in an edition, there is no knowledge.

“THE BIBLE PAUPERUM OR BIBLE OF THE POOR.”

This is the best specimen of block-books extant. Its authorship and date of issue are unknown. Some have objected to the title on the ground that the poor were unable to read. So much the more need of a pictorial Bible. A Bible proper, as made in those days, in two or three folio volumes on vellum, was the Bible for the rich and cost a large sum. One was sold in France in 1460 for 500 crowns of gold.

Four distinct xylographic editions of the “Bible Pauperum” have been discovered—two in Latin, and two in German. The edition acknowledged at the first and supposed to have been printed before the invention of types, is in Latin without date, name or place. It contains forty engravings on wood, printed only on one side of the leaf. Two pages of illustrations facing each other are followed by two pages of blank paper. Cracks in the wood block, and even the fibres are sometimes shown in the impression. The ink is of a dull, rusty color, rarely ever uniform in tint on the same page, evidencing an imperfect method of inking the block. The shining appearance of the cracks of the prints, where the raised lines of the wood-cut have indented the paper, has been a sufficient evidence that the impressions were not taken by a press, but by a frotton, or by rubbing in some form. De Vinne is, however, of the opinion that the block-books were really printed under a rude press, and refers to two of the four copies of the “Bible of the Poor” in the British Museum as showing evidence of this.

Some of the flagrant anachronisms are thus described: Gideon arrayed in plate armor with mediæval helmet and visor, and Turkish scimitar; David and Solomon in rakish, wide-brimmed hats, having conical crowns; The translation of Elijah in a four-wheeled vehicle resem-

bling a farmer's hay wagon. Slouched hats, puffed doublets, tight-legged breeches and pointed shoes are seen in the apparel of the Israelites. Some houses have Italian towers, and some Moorish minarets. The old Dutch stairlike gable is often delineated, as is also the round arch and latticed window of the Flemish house of the fourteenth century. It is not to that rude period alone we may look for anachronisms as ludicrous as those. More gifted artists at a later period have adopted fashions for their personages quite as modern and inappropriate.

Referring to the original blocks of the “Bible of the Poor,” De Vinne says: “We do not certainly know when and where these blocks were engraved, but we do know when they were destroyed. Two books published by Peter Van Os, of Zwoll, Holland, in 1488—89, contain seventy-seven engravings on wood which were certainly cut from the blocks that had been used to print the original edition of the ‘Bible of the Poor.’ To get the little cuts he needed to illustrate texts of movable type, Van Os must have partly destroyed the original blocks. In this act of destruction we have a fact and a date which give a clue to the origin of the book. Copies of the first edition in folio form must have been printed before 1488. At this date, and perhaps for some time before, the blocks in folio form had no mercantile value; there was no longer a demand for the book in the neighborhood in which it had been made. That the country in which this first edition was printed and sold was Holland, seems probable when we find that the blocks were used for the last time, and in a mutilated form, in a town of Holland.”

Some German antiquaries say that the book, in its original form, was designed and explained by a monk named Wernher, who was living in 1180, and was famous as a poet and painter. Others put the date as far back as the ninth century. Copies written

before the fifteenth century, have been found in many old monasteries.

"THE APOCALYPSE OF ST. JOHN

This is the name of an early block-book of pictures, rudely cut and badly printed, not so famous as the former one, but by some supposed to belong to an earlier period, but the date is unknown. German bibliographers say it was printed in Southern Germany; Dutch bibliographers say it was printed in the Netherlands, probably by Coster, of Haarlem. Some copies are interleaved with manuscript explanations, sometimes in the Dutch and sometimes in the German language. The greater part of the copies have, however, been found in Germany, and the most eminent bibliographers agree in the opinion that the first and most of the editions were printed in that country.

A copy of the book known as the Spencer copy is bound up with a copy of the "Bible of the Poor," and has on the binding this inscription: "Bound in the year of our Lord, 1467, by me, John Reichenbach, in Gyllingen." This is believed to be authentic.

"THE CANTICLES"

is a block-book of sixteen pages, small folio size, and conceded to be of Dutch origin. The illustrations are engraved with more care, and there is less of the ludicrous bordering on the profane than in the previous block-books described; but the oriental love story is presented with Dutch accessories. "The bride of the Song of Solomon, wanders about the streets of a city, supposed to be Jerusalem, but the dwellings have high-peaked roofs, Dutch gables and overhanging upper stories; she is assaulted by an armed and helmeted cavalier who carries on his shield the heraldic black eagle of some unknown German potentate; the pope, two cardinals and a bishop, with drawn swords in their hands and shields on their arms, look with great composure over Gothic battlements on the assault below."

"THE GROTESQUE ALPHABET."

A curious block-book of twenty-four pages; of the original not one perfect copy is known. Several leaves are found in the British Museum. Another copy is at Basle, which bears the date 1464; another at Dresden has the same date. Chatto says of them: "They were neither designed nor engraved by the artists who designed and engraved the cuts in the Apocalypse, the History of the Virgin and the Poor Man's Bible. . . . With respect to drawing, engraving and expression, the cuts of the Alphabet are decidedly superior to those of every other block-book and generally to all wood-engravings executed before the year 1500, with the exception of such as are by Albert Durer, and those contained in the *Hypnerotomachia*, printed by Aldus, at Venice, in 1499." He ascribes them to French origin. The real object of the book is not apparent.

"THE APOSTLES CREED."

A block-book of which only seven leaves remain. The fly-leaf has a written memorandum, V. W., 1471. A facsimile illustration from it represents the Resurrection at the last day. Four angels are blowing trumpets around a circle within which the dead are rising. Two figures in the lower corners represent Zacharias and Judas.

"THE STORY OF THE BLESSED VIRGIN."

This is a block-book intended to show the reasonableness of the story of the Incarnation and to defend the dogma of the Immaculate Conception. Lotheby mentioned four editions of the work. One edition contains an imprint in almost unreadable characters which bibliographers interpret as the letters F. W., 1470. The initials are supposed to stand for Frederick Walther, of Nordlinger.

The edition from which the illustrations are taken was roughly printed on one side of the paper, but in very black ink. There were four pictures on a page, with explanations, below each in

Latin. The engravings are exceedingly crude, and the explanations which are translated, highly stupid. The first one represents a temple of Venus, with a man gazing at a lamp. Second, a man gazing at a reflection of the moon in the

water; the crescent has a well-defined face of the man in the moon. Third, two human figures and a statue. Fourth, two men sawing a stone on which appear two human heads.

M. D. WELLCOME.

THE VICTORIAN JUBILEE.

THIS year is termed the Jubilee of the reign of Queen Victoria, because on the 28th of June she completed the fiftieth year since her coronation. Long reigns were those of George II. and George III. representatives like Victoria of the House of Hanover. George III. sat on the throne nearly sixty years and, as the Queen is not yet seventy and in the possession of good health, it is probable that she will live ten years longer. Victoria has been a sovereign of whom the English people may well be proud, and the celebrations, in all departments of government, and by all classes of society in honor of her, are a notable feature of the year. On Coronation Day the festivities culminated in a grand church ceremonial at Westminster Abbey, in which the Queen and members of her family and all departments of government participated, and there were attendant rejoicings throughout the country, the general disposition of the people being to make the most of so rare an occasion. For the time the serious condition of national affairs, as indicated by the long and bitter struggle over Irish home-rule, appears to be lost sight of by the English masses, in the excitements and diversions of the Jubilee.

Our engraving of Victoria, Queen of England, and "Empress of India," is from a recent photograph, and represents her in the attire usually worn on state occasions. She appears in this picture to be a lady of robust, well-preserved, physical condition, expressing in face and form much of the typical Anglo-Saxon of our era, and especially the temperament of her Hanoverian family.

"But what of her character from your point of view?" will be asked by the reader. In answer we may refer to a sketch published but a few years ago, by Prof. L. N. Fowler, who has made England his home for upward of twenty-five years, and can speak from personal observation and therefore to the point. Quoting from his delineation as follows:

"The head of Her Majesty is of full size, and the brain is fully developed in all its parts. Her brain, moreover, is well sustained by a strong, vital organization, indicating a strong hold on life. She has strong digestive powers, and can enjoy the good things of the table, yet may prefer simple and nourishing kinds of food to those of a more elaborate and concentrated kind. There is a harmonious relationship between her natural appetite and her digestive powers, for both appear to be distinctly developed. Her lungs appear to be large and ample, the heart is large, and the arterial system is amply represented; her muscular system is not predominant, and is only kept in a good condition by much change and exercise. This natural deficiency is hereditary, and leaves the mind without that support that is necessary. Her muscular system acts with force, but irregularly. The same is true with her nervous system and mind. Her nervous force is not a predominating power, and, although vigorous at times, yet there is not a superabundance in stock. The vital organization is superior, and has the ascendancy, and will add length to her days.

"The shape of the brain is elliptical,

being well-rounded out and indicating general culture. The base of the brain is specially developed. All the faculties connected with physical existence, with the breadth of the head at the base between the ears. The head continues wide upward, indicating great industry, economy, reticence, cautiousness, guard-



QUEEN VICTORIA.

the capacity to enjoy and protect life, and to provide for its wants are well represented. She has a strong, energetic disposition, much force of character, strong likes and dislikes, as indicated by edness and forethought. She is well-organized to acquire, save and take care of property, whether she have much or little. She naturally confides in but few, but not in them until they have been

tried and proved to be true. The domestic brain is strongly marked, and has a powerful influence on her whole character. Her head being large and broad in the occipital portion indicates strong love as a wife and parent. The development of her brain in the affections is in perfect harmony with what all know to be true in her life and character. As a companion she was devotedly attached, and few with the strong, impulsive love-nature that she has, have lived so discreet a life, thus, setting a most noble example of virtue and fidelity to all the women of her realm. She manifests great interest in children, both as a parent and toward the young generally.

"She is fully developed in the crown of the head, giving dignity, sense of character and ambition. Her position greatly facilitates the action of Self-esteem and Approbativeness, and their action with Cautiousness and Secretiveness may render her more distant and reserved than necessary. Her imperativeness would be called out by her position and her relation to others even if she had but a moderate tendency that way. The uncertainty of her position as the world now goes would be a sufficient cause to stimulate her to economy and reticence.

"The moral brain is large. The head is full in the coronal portion, and it rounds out into the climax organ, Veneration. That being the largest moral organ, her strongest moral feeling is the consciousness of a Supreme power giving her religious emotion, tendency to worship and regard for the ceremonies of religion. Spirituality is also large; she is disposed to think much about spirit-life and influences. Hope is not so large or influential; more of it would have been a decided advantage to her. Benevolence in connection with Friendship is strongly manifested and has a marked influence, yet it is well-balanced by her conservative qualities.

"The organ of Firmness is large and active. What she has determined in her mind to do, that she will do, and does

not know why there should be any superior obstacle in the way to prevent. Energy, determination and self-interest combined, form a very strong power in her character. So also her affections and family ties, joined to her integrity and sense of virtue, form another strong element in her character. Her head is broad in the temples, indicating versatility of talent, ingenuity, taste, love of art and sense of perfection.

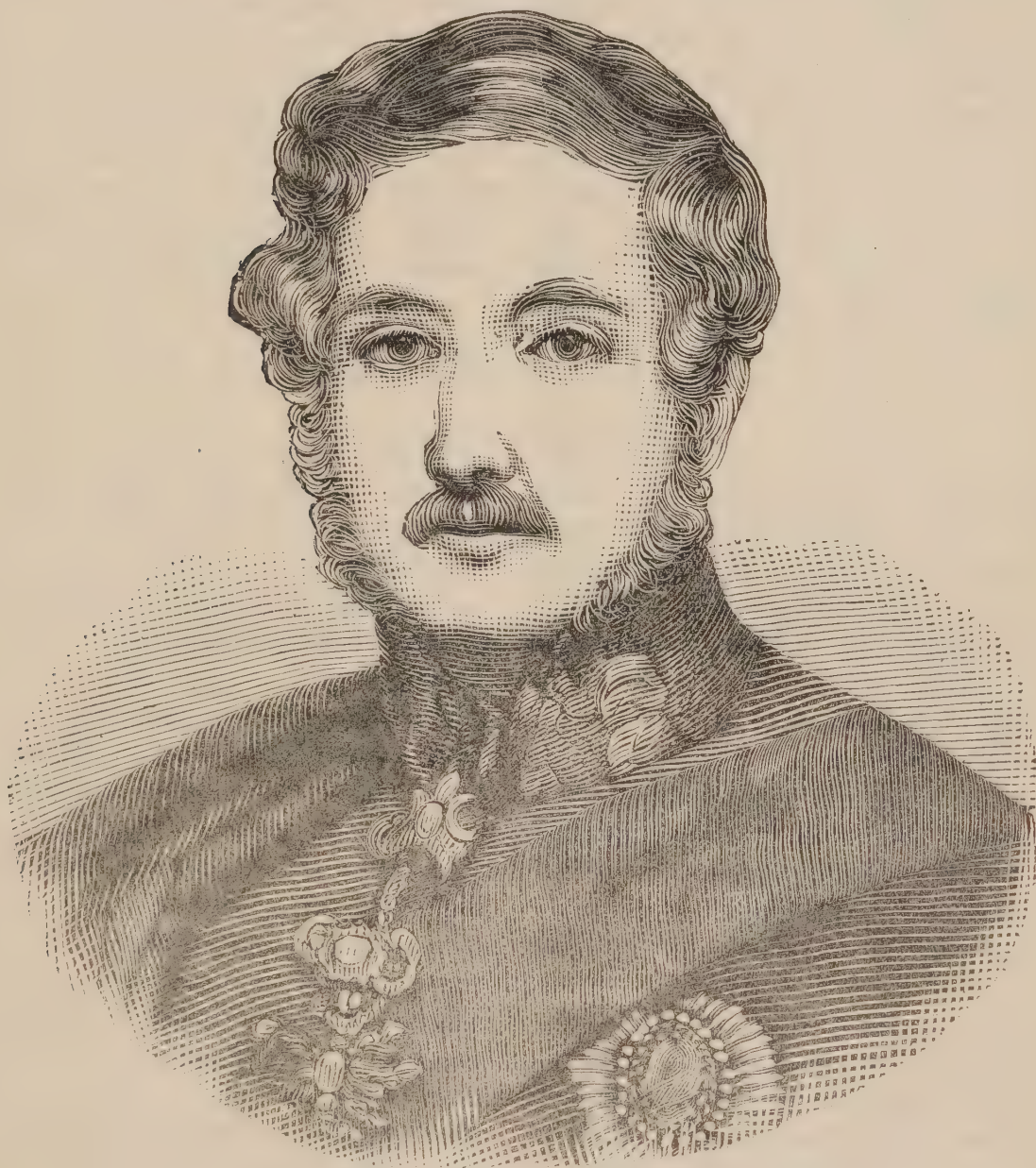
"The forehead is rounded out and full in the center, which indicates good powers of observation, general memory and consciousness of what is going on. Her three strongest qualities of the intellect, are Language, Order and Comparison. She has a full command of Language, and is equal to the occasion when necessary to express herself. Comparison being large gives her great power of criticism and in association of ideas, and she is quick to see the fitness and application of ideas and principles. She is sharp in discerning character and the motives of strangers, and is sufficiently suspicious to be guarded about committing herself. Her talents are of the practical, available, intuitive kind, rather than of the theoretical, inventive, or speculative kind. Order being large has a powerful influence when combined with the executive brain, rendering her very exact, prompt and particular in all her household and business arrangements. Being thus particular, she would as far as possible, take much of the arrangement of affairs into her own hands, and superintend their execution even into the details; and with her large Time, Conscientiousness and Firmness, would be inclined to see to it that each one of her servants or agents discharged his or her duty accurately and punctually."

The story of her life is so familiar to the world that to refer to it more than in mere outline would be to occupy space unnecessarily. In the current histories, in the current sketches that have been from time to time published by English litterateurs, and in her own memoirs

and diaries, the Queen's career in public and in private life has been made familiar. How she succeeded to the throne of England through default of an heir to William IV. is scarcely worth repeating. Born May 24, 1819, she was the only child of Edward, Duke of Kent, the fourth son of George III. Her mother was the Princess Victoria Mary Louisa,

on the 20th of June, 1837, the youthful princess was recognized as the lawful successor in the Hanover line, and one year and eight days later she was crowned in Westminster Abbey.

The example of Elizabeth Tudor does not appear to have excited Victoria's emulation, since she not long after assuming the dignity of queenship entered



PRINCE ALBERT AT THIRTY.

of Saxe-Coburg-Saalfeld. The Duke of Kent died within the year following his daughter's birth; but the Duchess lived until March 16, 1861. George IV. died without leaving an heir to the crown, and so did the two brothers who by virtue of their elder birth had the priority of succession. So when William died

the sphere of wifehood by marrying a cousin, Prince Albert, of Saxe-Coburg-Gotha. This marriage, which appears to have been an affair of the heart as well as sanctioned by the ministry, was a very happy one. Prince Albert was a gentleman of unusual refinement and amiability, and his early death, Decem-

ber 14, 1861, was lamented by the whole English people, while the Queen's grief from that time on has led her to live in comparative seclusion, rarely appearing to take part personally in the public ceremonies of State or in social affairs.

The Queen has had nine children, five daughters and four sons ; of these, seven are living, the Princess Alice and Prince Leopold having died, the latter in 1886. All are married, and with the exception only of the Princess Louise, who is the wife of the Marquis of Lorne, son of the Duke of Argyle, have one or more children. The Prince of Wales, heir presumptive to the throne, has five children, so that the probability of an early extinguishment of the heirs of Victoria in the near future is a matter of great

improbability. Her deep interest in her family has always been a subject of admiring comment, as she thus shows that the sentiments of true womanhood may not be subordinate to or inconsistent with the duties and dignities of royalty. In the regulation of her household she has maintained a system well known for its admirable order and economy. While the Prince of Wales has found himself unable to maintain the style which he considers becoming to his state without exceeding the liberal allowance given by the nation and the returns from his estates, the Queen has accumulated year by year a very large private fortune in money and landed property from the savings of her revenues.

D.

A GIRL'S PROBLEM.

WE find the following odd paper tossed ignominiously in Margaret Mackensie's waste-basket, crumpled, scratched and blotted by a pen evidently dashed down in impatience and disgust ; and we smooth out the rumpled pages, cross the wild t's, straighten the mad pot-hooks, and take the liberty to send to press the problem of a girl's life, in the hope that it may come back to her sufficiently criticised to relieve somewhat her perplexities :

What shall I do with you, Margaret Mackensie ?

The more I think of it the more I feel that I shall never be able to pick out the tangles in this puzzle of life until I sit down and coolly spread out on paper the sum of my untold grievances and perplexities.

If I make an equation of their known and unknown quantities—if I touch and measure them by square and rule, maybe I shall succeed in finding out their meaning and where on earth they will land me at last.

I hate this stumbling about in a maze of doubts, stubbing my toes against

craggy "ifs," and "buts" and "perhapses" and "may be sos."

It seems to me, after these million years of experience in bringing girls into the world, it is time to know what they are here for.

We were born, it strikes me, in a terribly hap-hazard fashion. There is no plan or purpose about the business. It is done, like everything that women undertake, in a sort of "inevitable," slipshod, hit-or-miss way, with no clear comprehension, calculation or determination respecting results. And then the whole botch and bungle of the affair is shuffled off on Providence, who has to stand sponsor for all human mistakes, and be besieged to correct them in some miraculous way without the slightest proffer of mortal assistance.

If it is the mission of women to become mothers, I really think they ought to study their Heaven appointed work with more earnest and enthusiastic purpose. I am sure they should not just meekly submit themselves, as it were, to a sorrowful election, and take no thought or provident care for the life evolved from

their own, beyond the financial elaboration of small clothes for the poor little body that is only a shell for the soul, to which is given no conscious motion at all.

Of course the whole rank and file of motherhood would rise up and give me the signal of silence if I opened this subject, and would politely inform me that I talked of a matter of which I knew nothing, and that I should modestly mind my own business—a thing I would gladly do if I could find out what it is.

But one thing I do know, if I am ever called to be the mother of girls, I will not turn them out on the world without a distinct notion of their place and part in it, and without some purpose of character to reach the aims with which they shall be inspired.

Now, I trust this is not a reproach to the mother of Magaret Mackensie—God bless her!

She has done what she thought she could according to her light, and the result is in the four girls revolving in a dazed circle about their central luminary, the sole son and brother, the gift of grace and crown of glory in the feminine family life. It seems to me the sun of the mother's existence is in the young man, and the girls are only absorbents of his scattered rays, and shine by reflected light.

At any rate, Tom has a purpose, which is more than can be said of the rest of us. He knows what he is aiming at and can give himself heart and soul to the accomplishment of his object, with every favoring influence to push him to his work. Beyond this purpose I will not admit that he is superior to his sisters, and if he had to live the vague, aimless life they are expected to live, he would be just as soft, silly, shiftless, and namby-pamby, and a thousand times more contemptible, as a man without a sound, sensible pursuit always is.

But we are proud of him. He is our representative of family character, talent, accomplishment, and such superfluous energy as remains, after our effort to

beautify ourselves, is devoted to the comfort and gratification of this prime factor of our household, this unit to which we girls stand as ciphers, useful chiefly in multiplying his value. He seems the motive power in our domestic machinery, and when he comes home we rush zealously to his service with easy chair, slippers, newspaper, favorite dishes, the latest bit of pleasant gossip, the farthest-fetched and most flattering compliment, and the tenderest subservience to his opinions—all of which he accepts with the royal condescension of the superior being to whom these things belong. Sometimes I should like to talk with him about the matters that occupy his thoughts outside our own narrow limits of the house, whose atmosphere needs now and then the expansion of a current from the great breezy world of thought and deed, just to save it from utter stagnation, if no more.

But Tom—good fellow—always stares in an amused, contemptuous way when we question or express an opinion on public affairs, and shrugs his shoulders, resumes his reading without response, or gives some indifferent answer, and changes the subject to one within range of our feminine comprehension. I'm not blowing Tom. It is only that I just simply long sometimes for a breath of bracing, stimulating air, beyond the confines of domestic expediency, neighborhood gossip, and the perplexing "philosophy of clothes," which is the absorbing study of a girl's brief day.

Why is the art of dress such a vital principle with women? Of course it is a privilege to present as attractive externals as good sense and due consideration of other obligations will admit; but I can not see why it is any more incumbent on me than on Tom to devote the energies of life to the attainment of a fair, fascinating exterior.

Truly, now, would it not be curious to see Tom expending his leisure hours in compounding and testing the virtues of cosmetics for his ruddy complexion, and

bandolines for his straight, blonde hair, which, like mine, will not run in pretty waves and tendrils without labored effort and constant attention? And when would the dear boy have found time for his protracted law studies, letting alone the working-up of a successful practice, if his mind had been tossed and torn with the next question of fashion in the cut of pantaloons, the perplexing matter of choice in style and trimming for his four-and-twenty dress coats, all of which must be matched by the still more distracting problem of hats, mantles, gloves, shoes, *lingerie* and the whole bewildering paraphernalia of the toilets designed to enhance his charms?

A thousand times more charming is Tom in his plain honest cloth which has no "shams" at all, and costs him little thought—his form erect with manly purpose, his face aglow and athrill with warm, eager interest in the living issues of his day!

And is it because we girls are so shallow, false and utterly lacking in the possibilities of brighter development that we make such desperate unremitting effort to win through the adornment—not the cultivation—of physical beauty alone? Might not a reversal of the order, and the adoption of Tom's policy, result more certainly and effectually in the attractiveness desired?

But then, what have we to inspire us with a love of beauty not self-seeking and absorbed in petty ambitions and small triumphs? We each have our little hobbies, to be sure, which give us blessed, soul-saving intervals of self-forgetfulness, in which there may be a limited expansion of thought and feeling beyond our narrow sphere of personal interest and vanities.

Grace is devoted to the manufacture of divers sorts of fancy work; Clara revels in the elaboration of toilets founded on principles of art, as she affirms; Moll delights in the concoction of dainty, delicate dishes, and recreates once a week in the study of cook-books;

while I—Margaret—find the keenest pleasure in the construction of original articles of household use and ornament, though unable to carry out the conceptions of grace and beauty that haunt me night and day.

With knowledge of mechanical laws and trained skill in the use of tools, I might realize in a degree my ideal of work; but I should never be satisfied until I became an earnest, practical student in the art of architecture, which has for me greater fascination than all the arts, liberal, polite, and fine. It seems not enough that I may botch and bungle in a private way at house furnishing, and walk the streets of my village with every sense strained and pained by the ugly lines and angles and projections of buildings that might as well have been planned with some reference to the laws of harmony and proportion.

Once or twice in my life I have had the pleasure of visiting a city where I saw neither the splendid outlay of dry-good palaces, nor the glory of brilliant thoroughfares and gorgeous exhibition halls—but I went staring and stopping along the way, gaping delightedly like a verdant countryman at every marvel of architecture, and seeking persistently every locality where there was any work in the line of my admiration. And staring, studying, staying unmindful of the press and hurry of the throng closing on every side, there came to me thrilling inspirations and suggestions of beauty that I might design if I had the courage to seek training and opportunity. Might this inner consciousness of power be simply an illusion? For I have remarked that there is very little mechanical genius or talent even among women. Their futile efforts in the use of tools are standing jokes with men.

I account for my exceptional taste and skill in mechanics to constant association in childhood with my father's carpenter-bench, where I was permitted the use of lighter tools and given waste bits of

wood with hints of their capabilities, which it was the delight of my busy hands to prove.

I think my father was rarely gifted in his trade and under more favorable auspices might have left to the world beautiful mementoes of his art; but he was considered too fanciful, too much devoted to fine work and exquisite finish to be appreciated by country patrons whose needs did not compass his highest possibilities. Perhaps, had I been born a boy, I might have taken up my inheritance and carried out my father's unfulfilled ambitions and desires.

But a girl!—

Why may she not have a hand in the construction of homes in which women are to spend their lives? At all events, nothing shall tempt me to wish I had not been born a girl. I wish only that I had been born with a purpose!—

After all I seem to be getting no nearer

a solution of my troubles. I have succeeded only in an incoherent statement of them.

There are so many to advise and direct girls what to do that perhaps some prophet in the multitude can forecast my proper course. Doubtless the hidden drift of the counsel would be to patiently bide my time in faithful attention to feminine duties until I am called to my queenship in the domestic kingdom, my only true place and power.

But even here is an aggravating uncertainty, too!

I may not be called by any king whom I could serve! Am I to wait and dally along without any clearly defined purpose—without any choice, even, in the only legitimate business of a girl—that of getting married?

Am I to sit and suck my fingers, and simper till the elect man magnanimously appears to direct me?

A. L. M.

RECOMPENSE.

A gardener planted a hyacinth
In a corner of his ground;
But a peonia grew before it
And spread her foliage round;
Ascending higher and higher,
Ambitious to prove her strength,
'Till the modest little hyacinth
From view was hidden at length.

But looking up from her prison,
Straight up from the walls of green,
A bit of the azure above her
By her wistful eye is seen;
And straightway into her garments
She weaves the beautiful hue,
And matches her bright corolla
With Heaven's imperial blue.

Then patiently in her bower there
She waited the crowning day,
When some one, seeing her beauty,
Should bear her in triumph away;
But weary at last grew her spirit,
And she breathed out an odorous sigh,
Filling the air with the fragrance,
Enchanting the passers by;

Who exclaimed as they saw the peonia
Spreading her crimson bloom,
"Oh, how lovely yon rich flower is,
And what exquisite perfume!"
Then the hyacinth sighed in silence,
Breathing her heart on the air,
Strange that her one little honor
Her thrice blest rival must wear!

But not altogether forgotten
Was that little corner of ground,
Where the hyacinth bloomed so sweetly
Shedding her fragrance 'round.
The gardener who planted the treasure
Remembered the spot where she grew,
And gazed with a fond admiration
On her blossoms so tender and blue.

And up from her narrow prison,
Out into the world so wide,
He bore her away on her mission
Of decking the brow of a bride;
An honor reserved for the sweetest
And purest of all the flowers.
And thus was the modest blossom
Repaid for her lonely hours.

There are flowers in God's great garden
 Shut in from the world's rude gaze,
 Uncompassed by walls uncongenial,
 While another receiveth their praise.
 But these lives that are hid from the world,
 Are nearer to Heaven's sweet clime,
 And having no other to guide them
 Are led by a spirit divine—

To copy the faultless pattern
 Which ever before them looms,
 And hasten to catch the color
 Of Heaven's imperial blooms.
 And 'though for the world's recognition
 In vain they may secretly sigh,
 The Gardener who planted the treasures
 Will remember them by and by.

ALMEDA COSTELLO.

THE BOTTOMLESS JUG.

I SAW it hanging in the kitchen of a thrifty, healthy, sturdy farmer in Oxford County, Maine—a bottomless jug! The host saw that the curious thing caught my eye and smiled.

"You are wondering what that jug is hanging up there for, with its bottom knocked out," he said. "My wife perhaps, can tell you the story better than I can; but she is bashful and I ain't, so I'll tell it.

"My father, as you are probably aware, owned this farm before me. He lived to a good old age, worked hard all his life, never squandered money, was a cautious trader and a good calculator; and, as men were accounted in his day and generation, he was a temperate man. I was the youngest boy, and when the old gentlemen was ready to go—and he knew it—the others agreed that, since I had stayed at home and taken care of the old folks, the farm should be mine. And to me it was willed. I had been married three years.

Well, father died—mother had gone three years before—and left the farm to me with a mortgage on it for \$2,000. I said to Mollie, my wife:

"Mollie, look here. Here father's had this farm in its first strength of soil, with all its magnificent timber and his six boys, as they grew up, equal to so many men, to help, and he worked hard—worked hard—worked early and late—and yet, look at it! A mortgage of two thousand dollars! What can I do?

"And I went to that jug—it had a

bottom in it then—and took a good, stiff drink of old Medford rum from it.

"I noticed the curious look on the face of my wife just then, and asked her what she thought of it, for I supposed she was thinking of what I'd been talking about. And so she was, for she said:

"Charles, I've thought of this a great deal, and I've thought of a way in which I believe you can clear this mortgage off before five years are ended."

"Says I; 'Molly, tell me how you'll do it.'

"She thought for awhile, and then said, with a funny twinkle in her blue eyes—says she:

"Charles you must promise me this, and promise me most solemnly and sacredly; promise me that you will never bring home for the purpose of drinking as a beverage, at any time, any more spirits than you can bring in that jug—the jug your father has used ever since I knew him, and which you have used since he has done with it."

"Well, I knew father used once in a while, especially in haying time and in winter when we were at work in the woods, to get an old gallon jug filled; so thought that she meant that I should never buy more than two quarts at a time. I thought it over, and after a little while told her I would agree to it.

"Now, mind," said she, 'you are never, never to bring home any more spirits than you can bring in that identical jug.' And I gave her my promise.

"And before I went to bed that night

I took the last pull at the jug. As I was turning it out for a sort of night cap, Mollie looked up and says she :

“ ‘Charley have you got a drop left?’

“There was just about a drop left. We'd have to get it on the morrow. Then she said, if I had no objections, she would drink that last drop with me. I shall never forget how she said it, ‘that last drop!’ However, I tipped the old jug bottom up and got about a great spoonful and that was enough, Molly said. She took a tumbler and poured a few drops of hot water into it and a bit of sugar, and then she tinkled her glass against mine, just as she'd seen us boys do when we'd been drinking to good luck, and says she :

“ ‘Here's to the old brown jug!’

“Sakes alive! I thought to myself that poor Molly had been drinking more rum than was good for her, and I tell you it kinder cut me to the heart. I forgot all about how many times she'd seen me when my tongue was thicker than it ought to be and my legs not so steady as good legs should be; but I said nothing. I drank the sentiment: ‘The old brown jug,’ and let it go.

“Well I went out after that and done my chores and then went to bed, and the last thing I said before leaving the kitchen, this very room where we are now, was: ‘We'll have the old brown jug filled to-morrow.’

“And then I went off to bed. And I have remembered ever since that I went to bed that night as I had done hundreds of times before, with buzzing in my head that a healthy man ought not to have. I didn't think of it then, nor had I ever thought of it before, but I have thought of it a good many times since, and have thought of it with wonder and awe.

“Well, I got up the next morning and did my work at the barn and then came in and ate my breakfast, but with no such appetite as a farmer ought to have, and I could not think then that my appetite had begun to fail. However, I ate my breakfast, and went out and

hitched the old mare, for to tell the plain truth, I was feeling in need of a glass of spirits and I hadn't a drop in the house! I was in a hurry to get to the village. I hitched up and came in for the jug. I went for it in the old cupboard and took it out, and—

“Did you ever break through thin ice on a snapping cold day, and find yourself in an instant overhead in freezing water? Because that was the way I felt at that moment. The jug was there but the bottom was gone. Mollie had taken a sharp chisel and a hammer, and with a skill that might have done credit to a master workman, she had clipped the bottom clean off the jug without even cracking the edges of the sides. I looked at the jug and then she burst out. She spoke—oh, I had never heard anything like it. She said :

“ ‘Charles, that's where the mortgage on this farm came from! It was brought home within that jug—two quarts at a time!’ And that's where your white, clear skin and clear pretty eyes are going! And in that jug, my husband, your appetite is going also! Oh, let the bottom stay out forever! Let it be as it is, dear heart. And remember your promise to me.’

“And then she threw her arms around me and burst into tears. She could speak no more.

“And there was no need. My eyes were opened as though by magic. In a single minute the whole scene passed before me. I saw all the mortgages on the farms in our neighborhood; and I thought where the money had gone. The very last mortgage father had ever made was to pay a bill held against him by the man who had filled his jug for years. Yes, I saw it as it passed before me; a flittering picture of rum! rum! rum! debt! debt! debt! and in the end, death! And I returned my Mollie's kiss, and said I :

“ ‘Mollie, my own, I'll keep the promise! I will, so help me heaven!’

“And I have kept it. In less than

five years, as Mollie had said, the mortgage was cleared off ; my appetite came back to me ; and now we've got a few thousand dollars at interest. There hangs the old jug ; just as we hung it on that day ; and from that time there hasn't been a drop of spirits brought into the house for a beverage, which that bottomless jug wouldn't hold.

"Dear old jug ! We mean to keep it and hand it down to our children for the lesson it can give to them ; a lesson of life ; of a happy life, peaceful, prosperous and blessed !"

And as he ceased speaking his wife with her arm drawn tenderly around the neck of her youngest boy, murmured a fervent amen.

FROM LIFE.

"THERE'S the very man!" ejaculated Mr. Thoms, as he sprang to his feet and left the Broadway car with such haste as to attract the notice of every other passenger. Involuntarily we two, who had sat nearest to him and overheard the exclamation, turned and followed him with our eyes. He dodged between the teams and fairly collared a pale-faced young man who was walking slowly and in apparent weakness along the sidewalk.

Then we lost sight of them as the car passed the postoffice building and carried us along toward the pier where we were to take the boat for Bath Beach and our summer "outing."

Safely arrived, after a pleasant hour on the water, a study of Liberty, then a mere skeleton with only the trail of her robe attached to the giant frame, we found that our nervous, eager neighbor of the Broadway car was our Boniface, and in the yard we soon discovered the pale-faced young man raking up the litter which some busy children and their not over-neat mammas had made.

The days went by and Sampson seemed to be fast becoming the *major-domo* of the place; his pale cheeks took on color, his thin hands collected flesh, his step became more vigorous. The boarders all liked him ; the children followed him about with the consent of the most fidgety mamma ; the pets whistled, neighed, chattered and tagged after him.

A month had passed and our rather eccentric landlord had become sufficient-

ly friendly for a chat on the lantern-lighted verandah.

"Sampson is a treasure," said one of the ladies.

"I knew that he would be. I saw him on Broadway one hot day in August, when I was at my wit's end for reliable help."

"We saw you collar him," interrupted my chum.

"Did you?"

"We were in the car with you, heard what you said and saw what you did. But Sampson looked very different then from what he does now."

"He had been sick five months in St. Luke's Hospital, first pneumonia, then a relapse, then neuralgia. His place had been filled, his money was all gone, his clothes had been stolen from his boarding-house and he had no friends."

"A rough outlook for a sick man."

"I saw him and I had been studying 'Heads and Faces,' a book published by the Fowler & Wells Co. I was measuring everybody by that book. I measured Sampson, and said to myself, 'There's my man.'"

"Not to yourself exactly, for we heard you," at which we all laughed.

"You must own that I saw correctly, and used my book to good advantage," pursued Mr. Thoms.

"We will all begin the study if it will teach us how to make similar good selections," suggested a gentleman who was noted for the mistakes into which his kindness was ever leading him.

"Head lore has been brought to a

science," said Mr. Thoms, "and the man who undertakes to run his business on a basis which excludes Phrenology and physiognomy makes a mistake."

Months have passed, and recently we learned that Sampson Lowry has proven himself so valuable to Mr. Thoms that

he is to have entire charge of the property at Bath Beach during the season.

It was one of those happy instances in which a good man found a place where he could be useful and at the same time be fully appreciated.

MRS. A. ELMORE.

THE "CROAKER" SISTERS.

WHAT a blessed thing is a cheerful spirit; and how cheap! Anyone may possess it, and keep it blooming as bright as the flowers that we may see at all times and in all seasons, beautifying the windows alike of rich and poor; for, like them, it only needs a little cultivation in order to be kept green and fragrant all the year round.

Cheerfulness is good every way, and for everything; good for the health, for the digestion, for all the ills, emergencies, and general "ups and downs" that flesh is heir to. It will supply the place of a bright day, a full purse, a new bonnet or dress, and even a good dinner, making their opposites, if not welcome, at least endurable. Not but what all these things are very attractive and desirable; but, after all, the possession of them goes a very little way, and yields but a small modicum of satisfaction, without the accompaniment of a cheerful spirit.

I lived one summer next door to a family by the name of Crooker—which, however, in consequence of their well-known dispositions, and by a sort of general agreement in regard to its peculiar appropriateness, was usually interpreted as "*Croaker*."

The family comprised seven sisters. None of them had ever been married, nor was it likely they ever would be. They might die, some of these days, but even *that* did not seem very probable. They were nearly alike in looks, and exactly alike in the one characteristic of never being quite satisfied with anything; and, so far as I could learn, they never had been.

They seemed to be a fixture in the village; for, although, with characteristic consistency, they were always complaining in regard to their little "freehold," affirming that the site would have been so much more to their taste if it had been somewhere else; complaining of the distance from town, of the character of the ground, and finding all manner of fault with the house, inside and out, yet, whenever there appeared the remotest prospect of selling it, the place immediately assumed a value in their eyes that far outran any bid that was likely to be made for it. The consequence was that the entire sisterhood was in a continually spasmodic state of being *just about* to sell their house, and *just about* to move; and during my twelve months' residence in the place I failed to meet with a single person to whom the realization of those expectations on the part of the sisters was not a consummation devoutly to be wished.

But so far as any satisfactory progress or definite result was concerned, they seemed fated to remain in the position of the Irishman, who, when trying to shoot a woodchuck, remarked, "the first time I hit him I missed him; and the second time I hit him in the same place."

So it was in regard to everything. No matter which member of the sisterhood might be addressed or what might be the subject of conversation, the response was always sure to be a shade out of tune.

"A pleasant day, Miss Crooker," would be remarked by a neighbor; and the answer would be:

"Well, ye-s-s; not so very unpleasant." But Miss Crooker would be sure to discover that it was a little too cold, or too hot, too wet or too dry, too cloudy or too breezy, or too something else that nobody but a croaker would ever think of grumbling about.

"Delightful music, Miss Jane," I heard a neighbor remark to another of the sisters at a public celebration which our little village had attended *en masse*, and where a brass band had just finished rendering some very fine selections.

"Ye-es!" with the stereotyped drawl and deprecatory curl of the lip. "Some people would like it, I presume; but I wish they had chosen another style of music and played with more expression. I am very peculiar in my likes and dislikes, and it did not exactly suit my taste."

"What a handsome bouquet you have there, Miss Sally," I said, stopping one afternoon on my way home to admire a very tastefully arranged bouquet that the lady was carrying with a half disdainful air.

Some of the flowers might do, but they are not grouped together in a way that pleases me," was the inevitable rejoinder. "Mrs. Jones' little girl gathered it for me while I stopped to speak to her mother, and of course I had to take it just as it was. There are too many glaring colors in it to suit me. I would have a larger proportion of brown and green. But I suppose it will have to do." And she passed on, her long, thin nose describing a higher angle than before.

"That linnet sings very sweetly, Miss Martha," observed a friend with whom I was holding a short conversation down by my gate, addressing one of the sisters who was standing like a grim sentinel at hers.

"Oh, the little thing yells so! It almost deafens me. It never seems to know when to sing or how long," was the characteristic answer, after which Miss Martha stalked solemnly away, as though afraid she might be entrapped

into saying something pleasant, for my friend on that occasion was one of those happy creatures whose unbounded good-humor was almost inevitably contagious.

"That is a very interesting book you are reading, Miss Tabitha," I remarked on one occasion, stepping into the Crooker domicile for a few moments to return some little article I had borrowed, and observing one of the sisters apparently very much absorbed in the pages of a novel, the title of which I read over her shoulder.

"Ra-ather," she replied, looking up with a languid air. "The type is poor, however, for one thing, and the binding also; it has a red cover, whereas I prefer green. Besides, I don't admire the way the plot is worked out altogether. If I had been writing the book I would have made some of the characters act quite differently."

I handed in the borrowed article and beat a retreat as quickly as possible.

Returning from church on one occasion, I heard a measured step behind me, and turned to see another of the sisters coming after me. The sisterhood attended service with commendable regularity; but they never went together, or at exactly the same time, although they did manage to occupy the same pew at church. My first impulse was to put my fingers in my ears to shut out the disparaging remark that I knew would be certain to greet them, inspired by whatever subject happened to come most readily to hand; then reflecting that it would not be a neighborly proceeding, I slackened my pace so that she might overtake me, and as she reached my side, remarked pleasantly:

"How did you like the sermon this morning, Miss Keziah? I thought it rather better than usual. And what a full attendance we had."

"The sermon might have been well enough if the minister had spoken louder, and chosen his similes more appropriately," replied Miss Keziah, with a deprecating droop of her thin lips. "I

believe I could have given him some valuable hints. And as for the congregation, fully one-half were looking around at the others to see what new bonnets they had and who was the best dressed. I doubt if two out of ten could have repeated the text."

"Let me see," I said suggestively. "It was somewhere in—"

"Well, I can't just recollect myself," said Miss Keziah, momentarily off her guard. "At any rate, I didn't consider it at all appropriate to the occasion. That minister isn't solemn enough. I'm afraid he does not realize the importance of the responsibilities that rest upon him. It must be a dreadful thing to be an unfaithful shepherd."

Under pretence of wishing to speak to a friend whom I fortunately spied a little distance ahead, I hurried on, leaving Miss Keziah to impart any further criticisms in, which she might be disposed to indulge to the unresponsive breeze.

It took me some little time to make the entire round of the "Croaker Sisters," for they rather prided themselves upon their exclusiveness; in fact, there was no one in the place whom they considered quite good enough to receive as an intimate friend. The youngest of the sisters, however, who rejoiced in the name of Hannah, appeared to be a very little less grouty and forbidding in expression and demeanor than the others; and I cherished, for awhile, a faint hope of being able to extract a slight ripple of friendliness or good nature from her. Accordingly one day, after having made several unsuccessful attempts to get within speaking distance of her, I took advantage of the opportunity afforded by observing her bending over a bed of very fine pumpkins situated near the fence that divided my little garden from hers.

"You have a fine lot of pumpkins there, Miss Hannah," I remarked approvingly. "Enough almost to make pies for the whole village," I added hastily, with a heroic attempt at humor, which,

however, quickly faded before Miss Hannah's forbidding and disdainful expression.

"They haven't done very well," she replied without looking up. "But we'll have to use them, I suppose—can't afford to throw them away. I believe we were cheated in buying the seed. I don't suppose they'll amount to anything, and I never *did* care about pumpkin pies, anyhow." And drawing her garden hat still further over her sharp face she retreated to the house, rendering my last attempt to be sociable and neighborly as fruitless as its predecessors.

Oh, how glad I was when the day came on which I was to bid good-bye to that lugubrious locality. I did not draw a really free, enjoyable breath until the last load of my household goods had actually started on its way from that neighborhood, and toward what I devoutly hoped would prove more congenial surroundings. Although I have since occasionally been in that vicinity I have never visited the spot where that year was spent, nor made any inquiry in regard to those sisters. The very atmosphere immediately around them was of such a dismal tint that I did not care to risk any further inhalation of it by reviving any old reminiscences. So, "for aught I know, they live there still."

Oh, my dear sisters—and brothers, too, for that matter—if you wish to invest in stock that pays good dividends and never depreciates, invest in cheerfulness. Of course we can not always be mirthful or merry. Life has its sorrows, its disappointments, its grievous trials, but one of the deepest and darkest of them all, like the bow breaking forth from the cloud that erewhile was lowering ominously over our heads, we may catch the steady gleam of a subdued and chastened but contented and cheerful spirit.

Your tears may flow sometimes; you may be sober, sad or pensive, but, oh, as you love yourself and pity your neighbors, don't, *don't* be a *croaker*!

EMILY H. HOUGH.

ONE PHASE OF SOCIAL SCIENCE.

NATURAL science has done grand work for the nineteenth century, but domestic and social science has not been far behind. It has not been sufficient for man to understand tidal waves, atmospheric pressure, and the perturbations of the planets. The heavens, the earth, and all the space between them, seem sometimes insignificant when compared to that one spot called home, in which center his deepest interests, his best affections.

There is no social problem harder to deal with than the regulation of the wages and the hours of labor of the great working population of the world. For years in our own country, as throughout Europe, this great question, of such vital interest to the workingman and of such enormous significance to the nation, has been under discussion and experiment. In strikes and lock outs between obstinate employers and ignorant employees, in mass-meetings and conventions of enthusiastic reformers—everywhere and incessantly this matter has been agitated, discussed, fought about and legislated upon. It is humanity's great comfort and encouragement that "in the long run" truth and justice triumph gloriously, though the "run" may be a *very* long one, while falsehood and injustice are swift of foot and quick in action. The martyrs of yesterday are the heroes of to-day. Abuse and ridicule change surely, if slowly, to praise and applause. It is true that "there's a good time coming, boys," even if for most of us it is necessary to "wait a little longer."

But is it for the "boys" alone that this cheering prophecy stands? Will the eight-hour law and all its kindred ameliorations still leave true that bitter old adage:

"Man works till set of sun,
Woman's work is never done?"

If this saying is a correct one—though its age alone does not necessarily prove

its truth—then there is something radically wrong in this special phase of the perplexing labor question. All error is the direct and legitimate result of ignorance. Justice is the perfect flower of social, as truth is of spiritual, development. Woman's advancement has been in most cases in proportion to the nation's progress in civilization. If to-day she still stands at any disadvantage it is only because ignorance is not fully dissipated and justice is not therefore fully done. Woman herself has so far made little effort to help herself. She has been content to wait—or at least *has* waited—till man should open for her wider gates and set her feet in broader paths. Not until then has she faith to believe that she can walk alone.

In the broadest sense the life of a man is in the world outside. The woman spends nearly all her days indoors. He, with muscular arm or busy brain, makes the money which furnishes food and raiment. She, as custodian, supplies from it the wants of the family. This appears, theoretically at any rate, an equal and rational division of labor. Does it prove so practically?

In the average household of the average workingman where the woman, as we express it, "does her own work," the work continues from "early morn" till long past "dewy eve"—sometimes into the midnight hours, and even then,

"Labor with what skill she may,
Something yet remains undone—
Waits the dawning of each day."

There is another singular and equally self-evident fact—that of the infinite number of little cares and labors, which, in addition to the bulk of the regular work, enormously increase the friction of a household, not one is supposed to fall to the share of the "men-folks." In the majority of families it is settled by tacit consent that no burden or shadow of care of any sort shall rest for an instant on masculine shoulders. Beyond and in

addition to this negative assumption the positive one is that every sacrifice which can be made for father, husband or brother is in order and is properly expected to be accepted simply as a matter of course. In the home, therefore, as in the world, man "from the cradle to the grave" is conceded to be the autocrat of creation.

The little girl must give up even her doll to the small brother who expresses a desire for it, even if he takes it with the deliberate intention of dashing out its tiny brains. The little girl must wipe the dishes and dust the furniture, while the equally small brother plays marbles out of doors. The little girl is faithfully instructed in all domestic law and order which requires her to pick up the hat which the small brother habitually flings upon the floor. The little girl's room must never be found "at sixes and sevens," a tumbled condition of bureau drawers is a disgrace, and the necessity for a continual "setting to rights" and "putting in order" becomes the ever-present consciousness of the feminine element of the family. The small brother's room is a synonym for all confusion, dirt and disorder, laughingly alluded to and quoted with an implication that the greater the chaos the greater the compliment to its occupant. "Just like a boy" is the only remark vouchsafed by the tired mother, always apologizing for the masculine members of the family.

School-duties absorb about one-third of the day for both boy and girl, but what is the occupation of the remaining two-thirds? For the boy, the freedom of out-doors or in-doors, but freedom in either case to amuse himself as seemeth unto him good. For the girl, the never-ending sewing, the setting and clearing of the table, the washing of the omnipresent dishes, and perhaps the additional washing and undressing of still younger children—all "to help mother."

School-life ended, the boy in shop or office, the girl in the dressmaker's rooms or the fancy goods store—still the same

freedom for one and the same bondage for the other—the young man devoting his evenings, chiefly away from home, to his chosen companions and favorite pursuits; the young woman to the familiar dish-towel or the needle, which the busy mother—nurse, laundress, cook and chambermaid all in one—has not found sufficient time to ply.

In the homes that these young people are in their turn to form, the same tacit understanding will exist. It is the logical outcome of their domestic experience. The tree will incline as the twig was bent, and neither twig nor tree will be conscious that there should be, or could be, any other bent or inclination. But is there not a more excellent, because a more just and equal way, and is not woman responsible for the direction?

In the primitive form of civilized life the conditions of the family were of the simplest sort; a plain house, plainly furnished, consisting perhaps of but one room; the man with gun, axe or plough finding enough occupation out of doors for every waking hour; the woman with boiling pot and helpless baby quite as completely absorbed indoors. Such division of labor was both necessary and fitting. But have not circumstances changed, and do not circumstances alter cases? The average domestic life of to-day in our towns and cities is a vastly more complicated affair than formerly. Even set-tubs and gas fixtures, sewing machines and carpet-sweepers do not prolong the lives of the women who do their own work to the age attained by their grandmothers. Yet while the intricacies and consequently the cares of the average household have so largely increased, has there been a proportionate division of the labor necessary to maintain it.

The shortening of the hours of labor, for which all who love humanity should rejoice, gives even more time to read the evening paper, to smoke a pipe, if so unfortunately disposed, to frolic with the little ones, to stroll around the corner to

the grocery or the liquor shop for a social chat, and too often a social glass. How has the change affected woman and her hours of labor? Not in the slightest degree, except in some cases to increase her anxiety as to the place and the way in which her husband, son, father or brother may be spending his extra time and money. Yet is it not a desirable thing for her and her daughters to have a little more leisure in which to share the play of the children, the newspaper or book, or possibly to stroll out of doors with husband or brother *not* in the direction of the grocery or groggery?

It is an easy way to laugh down a proposition that can not be met with logic. What a shout of merriment would be caused by the promulgation of the doctrine that boys as well as girls should be taught to wash dishes, darn stockings, sew on buttons and rock the cradle! And some women would laugh loudest of all. Could they tell why? Is it by divine ordination that all women are to be household drudges and all men household do-nothings? Is there "any sound reason to be rendered" why boy and man should be forever excused from the thousand and one little services necessary for all, yet rendered only by one side of the house?

The case is again altered by circumstances if servants are hired for all domestic labor. Yet there is a sensible theory prevailing that it is well for a woman to understand cooking and all domestic requirements, even with plenty of servants. They may leave her. She may experience financial reverses and be obliged to dismiss them. True. In that case why should not father and sons, as well as mother and daughters, adapt themselves to the changed conditions and share the added burdens? It is only "hoary-headed custom" which in its shocked surprise gives the name of "Miss Nancy" to the boy who ties on an apron and goes to the dish-pan, while it shrieks at the sight of a girl taking hold of law or medical books. But is it true that

"what is sauce for the goose is sauce for the gander," and that "it is a poor rule that won't work both ways"? No boy or man was ever worse off for knowing how to sew on a button, make a bed, sweep a room or broil a steak, while thousands of helpless "lords of creation" in boarding-houses, in camp, on the trail, at sea, or in a wife's sick-room have suffered for lack of just such knowledge.

The education of public sentiment in this direction is essentially woman's work, and the only schoolroom for it is the actual home itself. Why not, first of all, secure in this vital and central spot the "equality" which is so eagerly claimed, so bravely fought for, so logically argued by the advocates of "woman's rights"? Only the mother can so order the home and train the children that they shall be truly equals, and this result will be obtained only when the man is as well able to make a bowl of gruel for the wife as she is to take his place, if necessary, in the counting-room or on the deck of a ship.

C. B. LE ROW.

LONELY.

A SONG FROM THE GERMAN.

As the clouds that darkly creep, upon the
sunlit day,
Or the wind that fiercely drives the gentle
breeze away,
When it fills the fir-tree tops with low and
pleasant tones,
So my life is clouded o'er; my spirit filled
with moans—
So my life is clouded o'er; my spirit filled,
my spirit filled with moans.
O'er my way so lone I pass with weary, lag-
ging feet,
None are there to wait for me, none will
come to greet.
Alas! that skies should be so bright, the
world so wondrous fair,
Best for me the wildest storms, than sun
with none to share;
Better for the wildest storms than sun with
none—
Than sun with none to share.

MRS. A. ELMORE.



CONFORMITY TO LAW.

NO thinking person can deny the freedom and responsibility of human action. Man is a moral agent, subject to those laws by which the moral world is governed, and by which his highest interests would be affected, both in this life and the life to come. But not alone in the domain of spirituality are the conditions of man's well-being to be found; the physical man, deeply-rooted in the earth and breathing ethereal airs sustains responsibilities whose significance is proclaimed in the robust physique, in the rosy cheek and brilliant eyes, in the vigor of manhood and in the pains and agonies of disease. The human organism is certainly the most complex and the most perfect of all terrestrial existence. The first condition of life, where the life forces begin, is the inhalation of oxygen, that universally distributed agent for which the lungs are capacitated, and which gives vitality to the blood and tone to the system. So important is this relation that were oxygen excluded from the lungs life would be an impossibility. By involuntary expansion of the lungs oxygen insinuates itself into the air-cells as the first condition of animal life, and then as an instrumental cause intensifies all the forces put into action. Now if this first condition be counteracted by any means whatever, such as unventilated rooms, tight-

lacing or an unnatural posture of the body, health is correspondingly impaired at the starting-point of the life forces.

The demands of this age necessitates a discussion of those conditions of health and longevity that a wise Creator has made so obligatory upon us as intelligences in a world of conflicting elements where only the fittest survive. Nature is swift to inflict the penalty of her laws upon those who disregard her admonitions, and if punishment does not come *immediately* it will come none the less surely with its train of evils behind. Ignorance is reaping an abundant harvest and blighting the fairest hopes of life, and it is time to speak out and sound the key-note of alarm. What our people need is less medicine and more information about the laws of life and more common-sense. There are many persons living miserable lives wholly incapacitated both in body and mind for this world's activities and whose sands of life are continually leaking out, and meanwhile they hold the possibilities of recovery to perfect health and mental activity in their own hands. Nature, with all the agencies of hygiene at her command, is prepared for a perfect work in building up a perfect organization and maintaining a perfect standard of health. All that she demands is that her laws be obeyed and that no encroachments be

thrown in her way. This implies pure air, nutritious food taken at proper times, and in sufficient quantity to supply the demands of the system ; pure water, rest and exercise alternating with each other at proper times, sleep and the regulation of the passions and states of the mind.

Everywhere and in all things we are impressed with the idea of activity. The very existence of some things denotes action, and depends on their action, and the organization of all bodies is a sequence of action and is necessary to action. Organs imply function and function means a living process and all action is governed by law. All laws hold out the hope of reward and the fear of punishment, as incentives to obedience, and as restraints from crime, and these ideas are most prominently set forth in the primitive laws of nations both sacred and profane. "Whoso sheddeth man's blood by man shall his blood be shed," and "The soul that sinneth it shall surely die," are the declarations of Holy Writ, in which are embodied the germinal principles of law

There is no such thing as the occurrence of events outside of law and order ; there is a tendency in the human mind under certain conditions to consider events as happening without a legitimate cause. A certain passage in the Book of Job is in point. "My wound is in-

curable and that without transgression." But it will relieve us of much embarrassment to know that there is a cause for all events and that there is a remedy for every evil under the sun and that according to well-established laws.

All those terms that carry with them so much mysticism, such as animal magnetism, clairvoyance, electrical psychology and modern spiritualism (if there is such a thing) are only branches of natural science, governed by certain occult laws which may be investigated by their *modus operandi*, the same as the laws of chemical action and the laws that govern organized bodies ; and whatever phenomena have been realized under the government of those laws in any age of the world may, under the same conditions, be repeated, for law implies force, and all forces as well as all matter and principles are persistent and will ever remain so.

And thus there are awakened in us vivid dreams of the golden ages of the past when men knew something of the profoundest import of life and realized some of its possibilities. Man in the primitive ages attained to great longevity as a result of natural causes, and this condition might have continued but for the artificial modes of life that civilization brings, and the abuses of things intended for our good.

D. N. CURTIS.

DYSENTERY.

THIS is one of the forms of intestinal disease that when fully developed warrant grave apprehensions. The name is from the Greek and signifies "bad intestines" ; the common term by which it is known, "bloody flux," in itself signifies a serious degeneration of the function of the bowels. Dysentery is an inflammation of the mucous coat of the lower intestines, usually beginning at the junction of the small intestine with the colon and spreading in that until, if

not arrested, the rectum becomes involved. With its progress the mucous membrane becomes more and more altered, producing an excessive exudation of morbid matters and breaking down of the normal substance. The follicles become swollen and ulceration may ensue with discharges of putrid blood and broken-down masses of the mucous tissue. Should the disease run into the severest form its destructive changes may result in extensive ulceration, perforation of

the bowels, enlargement of the lymphatic glands, peritonitis and so end fatally.

Causes.—A weakened, anæmic or excited state of the digestive system may be presumed as a condition precedent, a condition that has been produced by unwholesome food or drink; the use of alcoholic liquors; a rich, stimulating diet—or, on the other hand, by a want of sufficient food. Dysentery prevails most in the season of cold and dampness, in the fall and beginning of winter. So to avoid an attack it is well to avoid exposures to cold and dampness, especially when these accompany sudden changes of the weather from hot and dry to cool and rainy. What will occasion other troubles of the bowels may develop this; for instance, unripe or stale fruit and vegetables, breathing impure air, emanations from marshes, sewers, etc. When it prevails epidemically the air of the place is pervaded with miasmatic gases. This is the case often in camps and hospitals. In warm weather the disease may be associated with the free use of flesh food.

Symptoms.—Dysentery of the acute type commences usually with a diarrhoea; there is nausea, a coated tongue, loss of appetite. Severe griping pains accompany the stools and much bearing down and heat in the rectum. “At first,” says Dr. Goss, “there is more or less fecal matter mixed with the mucus, but soon the fecal matter ceases to be discharged. Sometimes this bloody mucus changes into an opaque, dirty-whitish or reddish-gray substance, like the scrapings of flesh, which is seen swimming in a thin, bloody, or watery fluid. In this fluid also may be seen, in some cases, pieces of the slough from the lining membrane of the intestines; and sometimes the discharge assumes a brownish, chocolate-like color, and have a peculiar cadaverous odor, which announces the fact that the ulcers within the bowels have become ichorous, and that the mucous membrane is rapidly decaying, and soon to terminate fatally.

As soon as fecal matter makes its appearance in the stools the disease may be regarded as giving way, and will soon pass off, if properly treated. Pain in the bowels and tenesmus are the characteristics of this disease. The pain is cutting, colicky and drawing before and after, and during the stools. There is frequently a burning in the rectum and anus at each evacuation. Tenesmus (straining) is very intense, so much so, in some cases, that it causes prolapsus of the rectum, and even fainting or convulsions. At the commencement there may be violent vomiting and constant nausea. This disease is frequently accompanied with very high fever, dry skin, thirst and loss of flesh and bodily strength.”

If the disease is not arrested the morbid symptoms become more and more intense, the abdomen swells, the extremities become cold, a clammy perspiration is noticed, the patient grows weaker and at length collapse occurs.

Dysentery may run its course in a few days, or it may last several weeks, depending upon the previous state of the patient and the treatment. If the stools diminish in frequency, and the pain and straining at stool disappear, with a reduction in the fever, these symptoms may be deemed favorable, and advantage should be taken of them for the improvement of the sick one's condition.

Treatment.—The first rule to be observed, as in all bowel disorders, is to insist upon the patient remaining quiet. The second rule is to remove the cause of irritation, if the trouble be due to improper eating, or to endeavor to neutralize as soon as possible the destructive elements that have found lodgement in the intestinal coats. With tepid water, injections should be given, which will usually have the effect not only of clearing the bowels of the morbid products of inflammation but subduing that in a greater or less degree and retarding the evacuations. If there is much soreness care must be exercised in this treat-

ment, especially if the patient be a child. The fever must be subdued, as it is this which aids in the development of the destructive germs, as in all fevers of a malignant nature. For this purpose the cold-hip-bath is excellent. If a tub specially made for the purpose is not at hand, a good-sized wash-tub will serve. The patient should be placed in the tub so that the water will come up well over the abdomen. The object of this treatment is to reduce the heat in the intestines, and the attendant should have a clinical thermometer at hand to note its effect. When the temperature has fallen sufficiently the pain will cease.

Another method for obtaining the desired result is the pouring of water over the abdomen while the patient lies in his bed. This is suitable when absolute rest on the part of the sick is necessary. But a proper disposition of the bed clothing, a large sheet of rubber cloth, and apparatus for drainage of the water into a receptacle on the floor are essential to the success of this. Water can be applied thus directly to the seat of disease, while the extremities are covered warmly and the patient makes no effort whatever. Wet cloths can be applied to the abdomen, and in mild attacks may be all that is required to reduce the fever and subdue the other symptoms. For the intense thirst that is experienced in the fully developed attack, cold water may be given freely, the patient sipping it, not pouring it down by the glassfull, as is sometimes permitted. The tenesmus or severe contraction of the rectum is relieved by cloths wet in cold water, or pounded ice may be folded in a soft cloth and applied. The cold hip-bath, if it can be taken, will usually subdue such distress.

Opium is advised by most physicians of the old practice, and some consider calomel a valuable agent. "Administer opium early and persistently, and to the extent of absolutely quieting the intestines," says Dr. Austin Flint; but hygienists find water applications sufficient

in most cases for this purpose. When the attack has been suffered to reach an aggravated stage before thorough treatment has been undertaken, and the pain is obstinate, recourse to anodynes is proper but only with the advice of a physician or a person conversant with their effects.

The diet in all morbid conditions of the digestive system should be spare and carefully selected. Whatever is taken into the stomach should be mild, easily converted and nutritious. Milk, well prepared, wheatmeal, oatmeal, rice are appropriate. At first in convalescence from a severe attack fresh milk alone is sufficient, as its digestion leaves very little refuse in the lower bowel, and time is needed for the restoration of the parts that have been the seat of disease. The patient may show much appetite and desire for many different things that he was accustomed to eat in health, but instead of ministering to his instincts in this respect the nurse should be governed by an intelligent sense of his feebleness, and give food that is sufficient for the time. It is proper to add that the stools and soiled clothing of the sick should be disinfected promptly, and other precautions taken, as in other infectious diseases.

H. S. D.

GOOD RULES CONCERNING EARS.—1. Never put anything into the ear for the relief of toothache.

2. Never wear cotton in the ears if they are discharging purulent matter.

3. Never attempt to apply a poultice inside the ear.

4. Never drop anything into the ear unless it has been previously warmed, and then only under intelligent direction.

5. Never use anything but a syringe and warm water for cleaning the ears from pus.

6. Never strike or box a child's ear; this has been known to rupture the drum-head, and cause incurable deafness.

7. Never wet the hair if you have any tendency to deafness; wear an oil-silk cap

when bathing and refrain from diving.

8. Never scratch the ears with anything but the finger, if they itch. Do not use the head of a pin, hair-pins, pencil tips, toothpicks or anything of that nature.

9. Never let the feet become cold and damp, or sit with the back toward the window, as these things tend to aggravate any existing hardness of hearing.

10. Never put milk, fat or any oily substance into the ear for the relief of pain, for they become rancid and tend to produce inflammation. Simple warm water will answer the purpose better than anything else.

11. Never be alarmed if a living insect enters the ear. Pouring warm water into the canal will drown it, when it will generally come to the surface, and can be easily removed by the fingers. A few puffs of tobacco smoke or the smoke of burning paper blown into the ear will stupefy the insect.

12. Never meddle with the ear if a foreign body, such as a bead, button or seed enters it; but have a physician, or person who knows just what to do, treat it. More damage has been done by injudicious attempts at the extraction of a foreign body than could ever come from its mere presence in the ear.

POSTURES OF THE BODY.

THE posture of the body has a wide range of applicability, and as a factor in the modifications of physical conditions is unsurpassed by any other silent force. Long experience, unlimited opportunities, and great attainments are confronted by the fact that pelvic disorders still resist the most approved therapeutic measures. Many reasons are cited, for the lack of success. "High-heeled shoes" seem to be most inveighed against, yet it is quite probable that not one woman in a thousand has a definite idea of the manner in which the wearing of them militates against the good health she professes to desire; nor can give an explanation of the harmfulness of habitual half reclining.

The law of *hypostasis* holds good, as to our bodies. The speedy gravitation of the vital fluids to the most pendant part may be demonstrated by holding the head or hands below the level of the heart. The discomforts of sitting or standing motionless soon become so unbearable as to compel a change of posture.

If the muscles are in a state of contraction and relaxation, an upright or sitting posture may be maintained for hours without a sense of fatigue.

Through inaction and gravitation combined the tissues are soon loaded with noxious matter; which condition, if prolonged, results in textural disintegrations. The visible product of blood stasis in superficial parts indicates that the evil wrought in hidden tissues will be in proportion to their vascularity and non-resistance.

The erect or active and the horizontal or passive positions of the body are common to all mankind. Weariness compels us to seek rest, and we recline. In the cattle resting in the fields or the savage sleeping on the plains we have examples of correct posture in recumbency. An infant, also, lies prone until taught to lie on its back. The posterior walls of the abdominal cavity present two antero-posterior curves; the lower one begins to recede about the lumbar vertebra, and when reaching the sacral prominence dips abruptly backward, forming the solid dome sheltering the deep recess in which are situated the pelvic organs. As this pelvic alcove is situated wholly behind the plane of the dorsal floor, it is evident that it becomes a receptacle for the gravitating fluids of the body when the dorsal horizontal position is occupied; if the couch be

yielding, the pelvic sinks still lower, thereby increasing the *hypostasis*, the weight pressing upon so large a blood vessel as the *vena cava* adds to the accumulation of blood within the pelvic by impeding its egress.

All this evil is remedied by placing the body in the prone or semi-prone position; when this is done, the blood

the muscles are in a state of compensating tensions, the graceful curves of the body are preserved, the axis of the body is perpendicular. A backless stool of proper height is best for the adoption of this position. If a back must be added let it be nearly perpendicular, as those of our grandmothers were; the evil-working habit of lolling is so uni-



FIG. 1. CORRECT POSITION—FLAT FEET.

flows out of the pelvic basin as naturally as fluids leave an inverted vessel; the healthful activity of all the organs is largely secured by correct posture in sleeping. How unsightly is a heavy sleeper lying on his back, compared with one who sleeps on one side and thus more naturally.

To sit correctly, the body should be erect and firmly poised without the aid of any artificial, lateral or dorsal support; with proper equipoise of the trunk

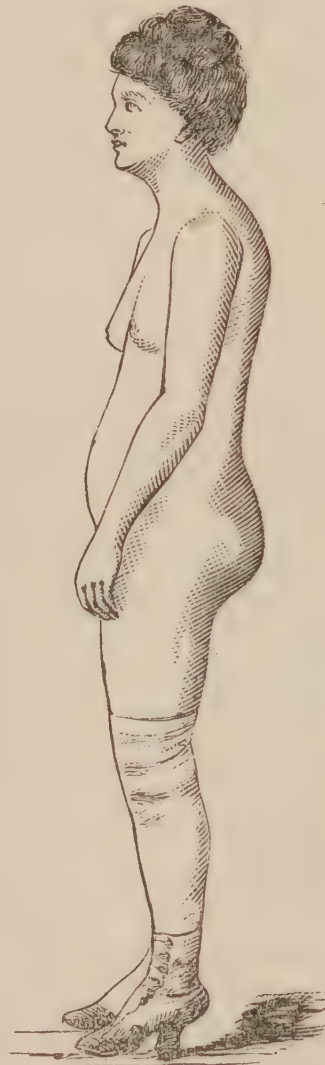


FIG. 2. ABNORMAL POSTURE—HIGH HEELS.

versal, that if one is seen to be sitting correctly he excites ridicule and surprise.

In standing, the graceful poise of the body requires a symmetrical play of the muscles. If undue demands are continually made on the muscles of one side of the body, while the co-relative muscles are inert, the result is not only a loss of graceful outlines, but a deeper wrong is wrought on the hidden structure. An erect, vigorously active body is everywhere an object of admiration;

while, on the other hand, the slaveling attitude instinctively arouses aversion. This feeling does not emanate from our innate love of the beautiful, nor from the common belief that physical perfection suggests moral worth; it is, rather, prompted by the subtle sensibility which accepts the correctly poised body as an index of a sound, happily conditioned, physical organization. Among the lower animals a slouching, cringing position is indicative of physical degradation or suffering.

A well-defined co-ordination of degree is maintained between the several spinal curves; consequently, the flattening of the lumbar arch incurs a corresponding effacement of all the others. When the lumbar vertebræ recede from the truncal axis the more remote dorsal vertebræ advance and there is a proportionate straightening of the figure, characterized by a straight back, round shoulders and protruding chin, the organs

within pressing to one side and producing sensations of weariness. High-heeled shoes destroy the normal poise and axial relations of the entire structure of the body, and inevitably entail disastrous consequences on a delicately organized woman.

The faulty habits of sitting, especially among school children, frequently results in chronic constipation; when, instead of correcting the cause by inculcating proper habits, still further harm is done by the use of medicines. While the suggestions and illustrations here offered point most to women, as being not only the greatest sufferers from wrong postures, but the most wilful and persistent infringers of nature's laws. the whole human family is included in the study; it is not so much women's backs and aches, as it is the back and the ache of each individual human being, and the cause and cure thereof which we wish to have more fully understood.

A PERSONAL EXPERIENCE.

THE article on "Cancer," by H. S. D., in the April issue I read with a great deal of interest, and can corroborate the writer's quotation from Helmut that "instances have occurred in which well-authenticated cases of cancer have been cured by the properly selected homœopathic remedy."

Let me give a personal experience. About two years ago, I, one day, observed while looking in a hand-glass, a tiny bright red dot on the right side of my face on the jaw. The only peculiarity about it was the brilliant color. The point of a pin would have covered it. A day or two later the spot seemed a trifle puffed. In the course of a week it commenced to bleed, the blood running down and dropping from the chin. It was stopped from flowing by repeated applications of an egg; but each time I washed my face or touched it at that spot the blood would flow. All the time the growth was increasing in size.

I consulted all the medical works at my command and felt convinced that it was what is scientifically termed "*fungus hæmatodes*," or rose cancer. Not wishing to alarm the family, I said nothing of my fears, but determined to consult the best physician the city afforded, which I did two weeks after the first appearance of the spot. He felt the face about the growth and said, "It had better be cut out pretty soon." He did not tell me what it was, and as he was a stranger to me I did not have much talk with him, but in my own mind resolved to go to Boston where my family physician resided. At this time the growth was about the size of a common boot-button and of a bluish, dark-red, soft to the touch and discharging a thin brownish liquid.

Early in July, I consulted Dr. K., and asked him if it was not a cancer. He replied, "It is something of that nature." From that time I received treatment and

for a while the growth seemed to persistently increase in size, then it stopped growing and discharged less frequently. Finally, it commenced to shrink at the base, as though a string had been tied around it.

In November it became worse, highly inflamed at the base and discharged freely. This continued until the latter part of December, when it began to improve slowly. At the urgent request of Dr. K. I left home and every care, going to the city and boarding. My improvement from that time was marked and rapid. I stopped in Boston four weeks and returned with my face nearly well, greatly to the surprise of everyone who knew me. Many persons would hardly be convinced that I had not been to a hospital, that I had not had the tumor removed with the knife, that I had not put anything on it. "Why, what did you do?" said some. "Oh, nothing," I replied, "except take little sugar pills."

I must have been an object of great curiosity or interest, for everyone who had the slightest acquaintance would ask me about it until I got tired of telling my experience over and again.

In justice to Dr. K., it should be said that the cure was greatly retarded by the hard work I was obliged to do, in con-

nection with my business and family, during the summer and fall.

It is over a year now since I considered myself cured, and so far I have not had the least soreness or pain in my face, and the scar is so slight I am often asked where the place was. Dr. K., is a young physician and does not make a specialty of such diseases, and his treatment which consisted mainly in the administration of a preparation of nitric acid, a remedy to which he was guided by the indication of the disorder.

I might add here that I have never been what might be called healthy, but I never was troubled before by any skin eruption, and having never known a case of cancerous disease in the family of either of my parents.

It is impossible for me to say decidedly what induced the growth. It might, however, have been brought about by the poison from bee stings of which I had received a number, which always produced violent swelling, great physical prostration and nervous excitement; becoming frequently overheated from violent exercise in the hot sunshine; being, meanwhile, a sufferer from nervous dyspepsia, may have also contributed to the disease.

Bath, Me.

MRS. J. F. U.

KISSING.

"WHAT an affectionate woman Mrs. Slosson is; always kisses me, as she did just now, when I call and as I leave, and she's just so with all her friends; and did you ever see a mother who caressed her children as much? Why, I can't get the time, what with making, mending, etc., with mine. Can you?"

Mrs. Mason turned to her companion, Mrs. Easton, for the reply that seemed slow in coming. "No," she replied, "and I don't know as I wish to. Do you consider kissing the highest and best expression of affection?"

Mrs. Mason looking a little mystified, and after a moment's thought said, "I don't know; most people consider it a very proper way, don't they?"

"Yes, too many I fear; setting aside the danger physically of such promiscuous kissing, it has always seemed to me to place human beings on a level with brutes, who express their fondness in very much the same form. There's an instance now in that barnyard yonder, two cows rubbing noses."

"Laura Easton, I believe you never want for a text to emphasize your opinions," and the round, rosy face of Mrs.

Mason laughingly turned in the direction of the barn-yard. "Such new ideas! I never thought of such a thing; and then the danger physically. How is that?"

"You remember poor Margaret May, who died of that malignant pustule of the lip? What do you think Dr. Dean's wife hinted, in confidence, to me the day of the funeral? I feel that I can trust you, Jessie, that it shall go no farther—that the Doctor has little doubt it was given in a kiss by that depraved lover, Roberts, with whom the poor child was so infatuated."

"Is it possible! Poor Margaret, she would never believe a word to his discredit, I remember. I hope her parents will never know it; it would kill them."

"If it might only kill him, and assure the safety of other girls his fascinations may be tried upon," sighed her companion, who went on to say, "I have always admired the wisdom of the physician I read of lately, who upon leaving home for a journey said to his wife, 'Now, don't let anybody who comes while I am gone kiss little 'Tot'—a darling girl and only child. His wife promised obedience, well-knowing his views in regard to the danger of promiscuous kissing. For myself I was never given to much kissing, except with clean children, and I have come to respect their rights enough to suppose they don't care to be kissed by every one, and when their parents insist upon their kissing me, I protest against it and say, 'Let *them* choose whom they will kiss, and I should, were they mine, make that number very few.' I never believed it the highest expression of affection, but chiefly an animal instinct, at least it seems to obtain largely with all animals, does it not, Jessie? Now, there's Mrs. Slosson, a good, warm-hearted, warm-natured woman, who never seems to think she can express affection for any one but by smothering them with kisses. As to her children, if their teachers tell the truth, with all their caressing, their

clothes, health and morals seem sadly neglected, as I have noticed too many of these easy-going, caressing, animal mothers do. Now, it is not a deadly sin, Jessie, to kiss one's own," and a bright smile was darted at Jessie, "but there are higher and infinitely better ways of showing love. What amount of kissing can compare with long nights of sleepless watching by a sick child, or the giving up willingly of much desired intellectual culture that a son may enter college, or a daughter become a proficient in music? It is what one will sacrifice for the beloved that settles the question for me. Shall I ever forget the look dear father gave me"—and the fine eyes filled—"two weeks before he died when I read the note from our teacher in which she commended my interest in my studies and what she was pleased to term 'my proficiency' in them. It was worth all the kisses in the world. Let me tell you, too, Jessie, that if all husbands beamed on their wives with such proud affection as George Maynard did when told of his wife's devotion to that poor family of Tracys, and how she had denied herself a new cloak that they might have blankets, kisses would not be needed. I know *one* wife who would value such a beaming far beyond them. I happened to be calling at the Maynards when her sister Lucy divulged the secret of the cloak, and of her sister's devotion to the poor family, and so saw that there was one genuine and loving husband at least."

"But do you never kiss husband or children, Margaret?"

"Rarely, very rarely, and then it is not, I trust, with a blind animal instinct, but as a reward of merit for self-denial, obedience, honor. A kiss should be given seldom enough to be a rarity; never as a surfeit. Now do you care half as much for a kiss from Charles as approving looks and commendations to see that he appreciates your efforts in managing your children and home?"

"No. Really, though, I do like a kiss

thrown in occasionally, as well as children like taffy. But there comes Susan. Susan's an inveterate kisser. How will you escape?"

"By dropping into Willis's. I'm commissioned by Belle to get some new mu-

sic," and with a pleasant bow and smile she slid inside just in time to escape the demonstrative young lady, who made up for the loss of her kiss to one by giving two to the other friend.

COUSIN CONSTANCE.

THE HYGIENE OF BATHING.

IN a short article published not very long ago in the *Western Rural* a writer recites the practical use of bathing, and does it in the emphatic language of the experienced physician, who knows from observation the effect of water in promoting health. A few changes adapts it to these columns:

Among all the appliances for health and comfort to mankind, we may safely say there is nothing so well-known, so useful and so comforting, and yet so carelessly performed or thoughtlessly neglected, as bathing. The skin of the human body, from head to foot, is a network of pores. One can not put a finger on a single place without covering several hundred little openings, which ought always to be kept clear of obstructions. As evidence of the truth of this statement we need only call to mind the great drops of sweat so often seen gathering on one's face and other parts of the body in warm weather—especially during the time of severe exertion. These pores lead into minute tubes or channels, that meander through the skin.

The dust which comes in contact with animals covered with hair is mostly kept out, and the perspiration is conducted away from the pores of the skin by those hairs; hence, bathing is not so essential with them as with mankind, whose bodies are practically denuded of such protection. The glutinous mass of perspiration, dust and filth, which in time gathers on the surface of the unwashed or cleansed body, covers and clogs the pores, and often poisons the system. Frequent ablutions and an occasional immersion in water are thus desirable and often indispensable to health and comfort; conse-

quently, every family should have a convenient bath of some kind, not only for general neatness of person, but as a means of preserving health, and in many cases employed under the advice of a good physician.

In the long catalogue of diseases to which flesh is heir, scarcely one can be named in the treatment of which a bath is useless. To those blessed with good health, a bath, as a common-sense appliance, gives thrift and growth to healthy functions, a brightness and delightful serenity, a clearness of mind and buoyancy of spirit. It is certainly a blessing to both mind and body. For the mental worker, it is a nerve tonic. A thorough application of water of proper temperature will calm and give strength and tone to his whole system. The indoor laborer, who gets but a scanty supply of fresh air, needs a bath to obtain the skin invigorating elements of the open air.

The outdoor laborer—especially the farmer—who works with heroic energy all day long, unavoidably gathers on the entire surface of his body a complete prison-wall of dust and viscid perspiration; and when his day's work is done he needs then, more than any other thing, not only a wash, but a good *bath* to fit him for home society, his clean bed and refreshing sleep.

Every one needs a bath at times, and every human habitation should contain something for a complete immersion in water, and, since convenient and efficient portable baths at comparatively low figures are now extensively advertised for sale, there is little excuse for most people to be without this priceless benefit.

NOTES IN SCIENCE AND INDUSTRY.

How a Feather Grows.—In the skin of a fowl, where a feather is to appear, there is to be seen a little pit, and at the bottom of this rises a tiny mound or pyramid. Around this pyramid certain little grooves extend deeper at the base, seeming to radiate from one large groove at one side, all growing shallower, and finally disappearing at the top. This whole pyramid is covered with a skin composed of the same scales, or flattened cells, as those which cover the whole body. In the ordinary process of growth the new formations on the surface of the body throw off as effete matter, the older portions of the skin, but here they are retained, and become so closely united to each other as to form a sort of honey-coat, more or less strong (according to its age) over the surface of the pyramid. As new cells grow at the base, they push up this little honey protuberance till it breaks at its thinnest point, which is opposite the large groove. Then, as new growths still push it onward and flatten it, it assumes the form of a feather, the ridge in the main furrow or groove being the shaft, while the side grooves form the separate barbs of the vein. When all this web of the feather is formed, the pyramid loses its grooves and becomes smooth. All parts are of equal thickness, and so hard as to break easily, but remain tubular and form the quill, which is attached to what remains to the pyramid. The finger nails, and even single hairs, are developed and formed in the same way, and every one, who has injured a nail and lost it, knows how long a process—some three or four months—is required to reproduce the missing finish to his digit.—*Poultry Mascot*.

A Late Word on Potatoes.—A Maine correspondent of the *Country Gentleman* writes: A learned professor from Massachusetts, recently in a lecture at a Grange meeting in the potato belt of Penobscot and Aroostook counties, said: "Never cut potatoes for seed; plant large whole potatoes, but plant small potatoes in preference to cutting large ones. Planting the potatoes whole would advance the crop ten or twelve days." This is pernicious doctrine. Whole

potatoes give an excess of vines and produce an excess of small potatoes, which no amount of fertilizers could overcome. Besides being a waste of seed it would take twenty or twenty-five bushels of large potatoes to plant an acre, whereas eight to ten is sufficient. Last year my large potatoes becoming exhausted, I picked out a bushel of small ones to finish my land. The result was about half the land was vacant and what did grow came to nothing. My practice is to cut a medium size potato into four pieces, being careful to cut from the sprout end to the butt. This will give about two eyes on a piece dropped fourteen inches apart in the drill, while three feet apart will cover the ground with vines. For two years I have sent to Aroostook county for seed. This high Northern latitude, where the snow lies deep on the ground when I am planting, 450 miles by rail almost due North, grows the best and earliest seed potatoes in the world.

Last year we put into market 150 bushels on the 8th to 10th of July on a bare market at \$1.25 per bushel from less than one-half acre of ground, and actually sold to farmers around here that had none fit to dig. Thus by sending North for seed we claim to advance the crop two weeks and double the yield.

The Derivation of the Australians.—The inhabitants of the continent of Australia, have long been a puzzle to ethnologists. Of Negroid complexion, features and skeletal character, yet without the characteristic frizzly hair, their position has been one of great difficulty to determine. They have, in fact, been a stumbling-block in the way of every system proposed. The solution, supported by many considerations too lengthy to enter into here, appears to lie in the supposition that they are not a distinct race at all, that is, not a homogeneous group formed by the gradual modification of one of the primitive stocks, but rather a cross between two already formed branches of these stocks. According to this view, Australia was originally peopled with frizzly-haired Melanesians, such as those which still

do, or did till the recent European invasion, dwell in the smaller islands which surround the north, east and southern portions of the continent, but that a strong infusion of some other race, probably a low form of Caucasian Melanochroi, such as that which still inhabits the interior of the southern parts of India, has spread throughout the land from the northwest, and produced a modification of the physical characters, especially of the hair. This influence did not extend across Bass's strait into Tasmania, where, as just said, the Melanesian element remained in its purity. It is more strongly marked in the northern and central parts of Australia than on many portions of the southern and western coasts, where the lowness of type and more curly hair, sometimes closely approaching to frizzly, show a stronger retention of the Melanesian element. If the evidence should prove sufficiently strong to establish this view of the origin of the Australian natives, it will no longer be correct to speak of a primitive Australian, or even Australoid, race or type, or look for traces of the former existence of such a race anywhere out of their own land.—*Popular Science Monthly*.

The Discoverer of Spectacles.

—Fewer inventions have conferred a greater blessing on the human race than that which assists impaired vision. It is impossible to say how many there are at the present day whose lives would be almost valueless were it not for the use of spectacles. Indeed, Dr. Johnson rightly expressed his surprise, that such a benefactor as the discoverer of spectacles should have been regarded with indifference, and found no worthy biographer to celebrate his ingenuity. Unfortunately, however, his name is a matter of much uncertainty; and, hence, a grateful posterity have been prevented bestowing upon his memory that honor which it has so richly merited. But it may be noted that popular opinion has long ago pronounced in favor of Spina, a Florentine monk, as the rightful claimant, although some are in favor of Roger Bacon. Monsieur Spoon, in his "*Recherches Curieuses d'Antiquité*," fixes the date of the invention of spectacles between the years 1280 and 1311, and says that Alexander de Spina, having seen a pair made by some other person who was unwilling to

communicate the secret of their construction ordered a pair for himself, and found them so useful that he cheerfully and promptly made the invention public. According to an Italian antiquary, the person to whom Spina was indebted for his information was Salvino, who died in the year 1318, and he quotes from a manuscript in his possession an epitaph which records the circumstance: "Here lies Salvino Armato d'Armati, of Florence, the inventor of spectacles. May God pardon his sins. The year 1318."—*London Standard*.

Chrome Steel.—Chrome steel is not, as is often supposed, a brand of carbon steel of which the word "chrome" is the trade-mark. It is an alloy of chromium and iron, the proportions of which are accurately weighed and scrupulously exact in every grade, both metals uniting perfectly in alloy become integral in their unity, thereby producing a uniform steel that will not deteriorate by the continued application of great heat, and, unlike carbon steel, can be worked with perfect reliability in large masses, a quality of vital importance in the general uses of steel. The authorities at the U. S. navy yard, Washington, D. C., after having subjected it to a thorough test, reported as follows: "It is of a uniform texture in large or small masses; it is exceedingly tough when hardened; it will do from three to four times more work in all the various kinds of tools than carbon steel will; it can be welded and worked at the same ease that wrought-iron can, and can be made into all the various forms required for machinery without danger of being destroyed by overheating."

An important feature of chrome steel over common steel is, that it can not be cut or broken by the finest steel saws, drills, or chisels, as it is much harder than such tools can be made. On this account it is particularly adapted for window-guards, gratings, doors, and other constructions previously referred to. Its cost, above the common iron used for such purposes, is trifling compared with the increased security.—*Building*.

Driving Horses Without Shoes.

—Mr. P. H. Fagan, furniture and piano mover at Malden, Mass., has driven two

horses, weighing 1,100 pounds each, and one 1,300 pounds, without shoes since January, 1885, with the following satisfactory results, reported by the *Boston Transcript*:

The large horse had always been lame since he bought him fourteen years ago, until he took his shoes off, but has not gone lame since. He has driven on hard flint roads, and of course on pavements in Boston. The horses travel better than before their shoes were taken off. They are not afraid on slippery pavements, as they were with shoes on, and there is no trouble in getting round on any kind of going in the city. Mr. Fagan drove to Shrewsbury, thirty-five miles from Malden, after two days' rain in February, 1885, when it was so icy that a boy could skate all the way, and had no trouble. He left home at 7 A. M., and the horses did not slip. The hoof is hard and broad, and the frog is full and plump and on a level. They have driven two winters on ice and snow altogether better than when they were shod. Their feet are better for all purposes, they can travel faster, pull as much and go more miles in the same time than they could when shod. This is altogether in accordance with what Dr. Page advances in his book on horses' feed and feet, published a year or so ago, and which has done much toward instructing horsemen in the right treatment of their animals.

Scouring Action of Water.—The carrying or transporting power of water increases as the sixth power of the velocity—a prodigious rate of increase, as may be inferred from the fact that a stream having a velocity six times as great as another will be able to transport material weighing 46,656 times as much as that carried by the slower stream. The data from which engineers commonly calculate the effect of a scour on a river bottom are about as follows: A stream flowing with a velocity of three inches per second barely produces an effect on fine clay; six inches per second will raise fine sand; eight inches per second will raise sand of the coarseness of linseed; twelve inches per second will sweep along fine gravel; twenty-four inches per second (or one and one-third miles per hour) will carry pebbles of about one inch diameter; thirty-six inches per second

(which is about two miles per hour, or about two-thirds the rate of speed of a moderate walk) will sweep along fragments the size of an egg.

The Chemical Composition of Man.—From a chemical point of view, man is composed of thirteen elements, of which five are gases and eight are solids. If we consider the chemical composition of a man of the average weight of 154 pounds, we will find that he is composed in large part of *oxygen*, which is in a state of extreme compression. In fact, a man weighing 154 pounds contains ninety-seven pounds of oxygen, the volume of which, at ordinary temperature, would exceed 980 cubic feet. The *hydrogen* is much less in quantity, there being less than fifteen pounds, but which, in a free state, would occupy a volume of 2,800 cubic feet. The three other gases are *nitrogen*, nearly four pounds; *chlorine*, about twenty-six ounces, and *fluorine*, three and a quarter ounces. Of the solids, *carbon* stands at the head of the metalloids, there being forty-eight pounds. Next comes *phosphorus*, twenty-six ounces, and *sulphur*, three and a quarter ounces. The most abundant metal is *calcium*, more than three pounds; next *potassium*, two and a half ounces; *sodium*, two and a quarter ounces; and, lastly, *iron*, one and a quarter ounces. It is needless to say that the various combinations made by these thirteen elements are almost innumerable.—*Le Practicien*.

BEFORE AND AFTER.

VERY ILL.

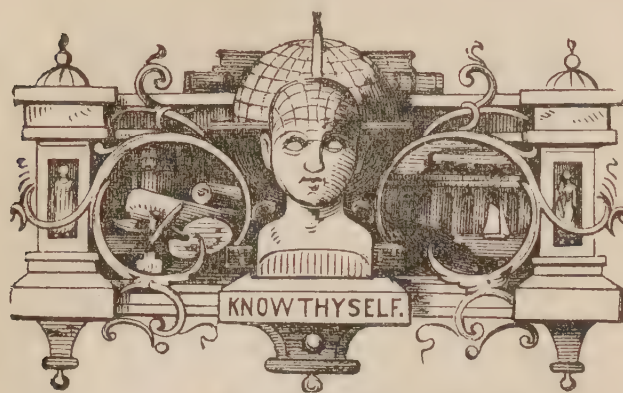
Name, oh, doctor! name your fee!
Ask ———, I'll pay whate'er it be!
Skill like yours, I know comes high,
Only do not let me die;
Get me out of this, and I
Cash will offer—instantly!

CONVALESCENT.

Cut, oh, doctor! cut that fee;
Cut, or not a dime from me;
I am not a millionaire,
But I'll do whatever's square;
Only make a bill that's fair,
And I'll settle presently.

WELL!

Book, oh, doctor! book your fee!
Charge ———, I'll pay it futurely,
When the crops all by are laid,
When every other bill is paid,
(Or when of death again afraid)
I'll pay it—grudgingly. *St. Louis Med.*



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H. S. DRAYTON, A.M., M.D., *Editor.*

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JULY, 1887.

THE SEX OF BRAIN.

IN the June number of the *Popular Science Monthly* a letter appears signed Helen H. Gardener, in which the writer takes Dr. W. A. Hammond rather sharply to task for certain statements of his, in a recent article, relative to the quality and weight of the female brain as compared with the male. One of these statements is to the effect that an average male brain is so different in many particulars from an average female brain that but a little experience in their observation would be sufficient to enable one to distinguish them. He says: "The male brain is larger, its vertical and transverse diameters are greater proportionally, the shape is quite different, the convolutions are more intricate, the sulci deeper, the secondary fissures more numerous, the gray matter of the corresponding parts of the brain decidedly thicker."

Should we compare the brain of the adult woman as she averages in American society, with that of the average adult man, several of these particulars will be found to be true, and while certain differences in the cerebral develop-

ment are incidental to sexhood, and are not evidences of inferiority, there are others that may be taken to show inferior mental capacity. This mental incapacity, Miss Gardener rightly attributes to the lack of opportunity for mental development, that has been the lot of women in civilization, while Dr. Hammond appears to hold, that the lower range of mental power in women is due to a native incapacity, an unalterable difference in brain mass.

One item of this difference is *specific gravity*, which Dr. H. alleges is shown by his own observations to be "greater in man than in woman." Now, as every physiologist knows that specific gravity is a matter of much variability in the solid and fluid substance of the body, the claim of an absolute standard for the soft viscus of the encephalon appears to us as going beyond our present data. We wonder that close observers like Sappey, Wundt, Voit, Brown Sequard, Quain, Luys, Bastian, Dalton, Wagner, etc., have not determined this and provided a *datum* for the proving of brain-sex.

In infancy and childhood the inherent marks of difference are certainly few, and we frankly admit that we should not approach a test of our capability of selection without misgiving, when all that might be submitted for examination were a bare brain on a platter. In adult life, however, there are organic indications in structure and form that supply a clue for the use of the experienced. Yet, there are men, who are so much like their mothers, that their brains alone would be insufficient material for judgment. So there are women whose nervous organization from head to feet is more like their fathers than their moth-

ers. Who does not know girls who are more boyish than girlish—girls in whom the mentality is so saliently masculine that the common expression is that nature made a mistake in their sexhood. We know that such brains would offer a severe trial to any anatomist, whatever his experience, to determine their place.

Dr. Hammond evidently appreciates the analogous evidences furnished by size, form and appearance of the head as a whole, but goes too far in his attribution to the brain alone as a test of sexhood.

Another point referred to by the *P. S. M.*'s correspondent is the assertion "that the head of a boy or girl does not grow in size after the seventh year." We were inclined to impugn this as a mistake of the lady-critic in quoting from Dr. H.'s article, but a reference to our file of the *P. S. M.* decided the doubt in so emphatic and surprising a manner that we quote his words more fully :

"The brain of a child is larger in proportion to its body than is that of the adult. A fact which is somewhat astonishing to those not aware of it is that the head of a boy or girl does not grow in size after the seventh year ; so that the hat that is worn at that age can be worn just as well at thirty."

We confess ourselves rather staggered by this assertion of a prominent member of the Neurological Society of New York, in this era of brain advancement. Gray, Dalton, Flint, Quain, and other authorities easily accessible, assure us that the brain may grow up to even forty years. Our own observations of young and old warrant us in saying that the child of seven or eight may expect to have a head at least an inch

larger at sixteen. The boy of ten who has a head twenty-one inches in circumference, will as a rule have a twenty-two or twenty-two and a half inch head at twenty-five. We half suspect that Dr. H. had been looking over some old references just before writing his article, possibly such an author as John Gordon, or Sir William Hamilton, of fifty years ago, and incautiously permitted their *passé* opinions to escape at the point of his pen. Or perhaps it was in a semi-jocose vein the error was permitted to take verbal form that its writer might see whether his readers would swallow it, or come to the support of truth in indignant surprise.

THE MISTAKES OF LIFE.

SOME thoughtful person has been analyzing the errors and mistakes made in common life, and finds that of all the number which at first glance most of us would estimate by the thousand there are but fourteen important ones, which array the great majority of the others under their respective heads. These fourteen mistakes are enumerated thus :

1. Setting up our own standard of right and wrong ; and, 2. Judging people accordingly ; 3. Measuring the enjoyment of others by our own ; 4. Expecting uniformity of opinion in this world ; 5. Looking for judgment and experience in youth ; 6. Endeavoring to mould all dispositions alike ; 7. Yielding to immaterial trifles ; 8. Looking for perfection in our own actions ; 9. Worring ourselves and others with what can not be remedied ; 10. Not alleviating all that needs alleviation as far as lies in our power ; 11. Not making allowances for the infirmities of others ;

12. Considering everything impossible that we can not perform ; 13. Believing only what our finite minds can grasp ; 14. Expecting to be able to understand everything.

A general inspection of these great mistakes, so common in human experience, leads to the conclusion that they are due to one great want in the mental economy, and that is harmonious culture. It would be altogether unlikely for the man who has made himself conversant with the constitution of mind, and seriously views the world from the vantage ground that such knowledge furnishes, to make any of these mistakes deliberately. Perceiving, as every student of mind does in the early part of his observations, that the differing types of intellect and moral character are primarily dependent upon organization, he could not expect to make his own measure a standard of universal reference. He might censure men on whom nature had bestowed more than average gifts of intellect or sentiment, and who were found indifferent to their opportunities and privileges, degrading by abuse what was designed for their own elevation and the betterment of their fellows. He might point out the fact that as a rule we do not exercise our faculties to their full extent, and consequently fail to achieve all that we should.

On the side of allowance and toleration a true knowledge of mind exhibits a significant superiority over false or fanciful notions of character, for it not only is kind and considerate of the infirmities of others, but disposed to help the weak toward a better exercise of the understanding ; a better use of the faculties, imperfect though they may be. The

people who are exacting, arbitrary, puffed up with an overweening sense of their own importance and capacity are not competent judges of character. Industry and a bull-dog-like pertinacity may have won pecuniary success in some line of trade, but in their eager pursuit of gain the noble and generous side of character has been neglected, and with the getting of money they have lost that wisdom which is above all, the wisdom of a developed, enlightened mind.



ONE WAY TO HELP REFORM.

IN England the movement in behalf of temperance reform appears to be gathering strength, and those who deal in intoxicating beverages or derive benefit (indirectly) from their sale are greatly alarmed. It is said that wine and dram-shops, once the most valuable of property, bringing often at public auction extravagant prices, are now regarded with uncertainty. If we look beneath the surface of temperance matters over there with our English cousins, the reason for this change will be evident. We will find that there is a progressive spirit of organization that pervades the intelligent classes. There is a large association of ministers who have arrayed themselves against liquor drinking. There is a strong body of medical men, among them some of the most distinguished, who urge the non-use of alcohol in the treatment of diseases. Great dinners are given at which there is no wine, and temperance restaurants and hotels on the Waverly pattern are becoming more and more popular. When we were on the other side of the "big pond," several years ago, we found it difficult to

obtain accommodation for ourself at a Waverly in either London or Glasgow on account of the constant demands upon their facilities—and it was during the dull season of the year when hotels of the ordinary sort, with their gin and beer conveniences, were offering a liberal choice of empty rooms to infrequent guests. In Edinburgh we were present at a dinner by invitation where nearly all the company were “commercial men” from different parts of the country, and a pleasant company it was, but no liquor was ordered or brought to the table. What a contrast with the habits of the commercial travelers of America when convivial!

Coffee restaurants are increasing to the suppression of old and once favorite gin and beer palaces.

If the good work of temperance reform is to go on vigorously here our people must imitate their English cousins, and organize on a wide scale for its prosecution. Let our medical men, our clergymen, our lawyers and merchants organize associations declaring for abstinence, and let them sustain cordially the barless hotel and temperance restaurant, and keep open in every crowded neighborhood cheerful evening resorts for the young and old who lack the comfort and ease of home and family life. Organized, steady action on the part of men and women in the higher walks of city society, in such practical directions as we have indicated, would in time so control the drinking habits of the masses that High License laws would not be necessary, and disgrace would not be heaped upon the official who should resist the enforcement of a penalty for the illicit sale of whisky.

THE ORDINARY GIRL.

“JUST an ordinary girl!” said an acquaintance. “There are hundreds like her.”

This of a youthful specimen of the sex who met us on the way. She was simply clothed, merely a plain, dull plaid of some kind of woolen stuff which fitted her rather square, and robust form so loosely that arms, lungs, heart and lower extremities had room for movement as she walked briskly along. She had no “Jersey” with its kid-glove exposures of anatomical deficiencies, and no overskirt beaded and puckered and tied-back in the latest style. Her hat was a low-crowned one, with a flower or two just relieving its monotone of color; and her hair smoothly combed and tied up in a simple knot, offered no sharp contrast to attract special attention to the homely features of her broad face. We did not see anything akin to the flash of genius from “glorious eyes” as she modestly glanced at us in passing, perhaps wondering what there could be in her that would draw the look of a stranger. She had no “style” to attract notice, just a straightforward, easy gait; there was no twitching or swaying of skirts, no nervous simper or spasmodic jerk of hands or feet, no looking this way and that, nor any ogling of passers-by. She was evidently but an average girl, with no special ambitions, no “lofty aim” in life; simply disposed to pursue the course of action that belonged to the day or the hour.

Our companion’s remark had in it a shade of disdain, and after completing our short review of its object we turned to him and said: “Bless her! What

would the world do without the ordinary girl?" He stopped on his heel a moment, looked sharply in our face, as if doubtful of our sincerity, and with a glance of enthusiasm, exclaimed: "You are right

it is the ordinary girl, loyal to home, faithful to duty, unpretending, willing to do and to suffer, cheerful in the midst of the commonest service, that makes life tolerable. Blessings on her!"

Our Mentorship Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

HEART'S FUNCTION.—J. W. S.—The ancient notions of the heart, as having to do

with certain faculties of the mind, especially the warm sentiments of affection, benevolence, etc., were figments of the imagination, and due chiefly to ignorance of the anatomy and physiology of the organ. The heart is an important machine in the life-processes, inasmuch as its duty is to maintain the circulation of the blood by its pumping action. It has nothing to do with the production of thought, no more than the gardener's pump that raises the water for irrigating the plants has to do with the vegetables and fruits that grow on the plots. The water ministers to the growth of plants; so the blood ministers to the growth and health of the brain, which is the true organ of the mental entity. We do not say that the brain originates mind or thought; no one who understands the philosophy of modern Phrenology (the Phrenology of Combe) will say that. We do not know what the essence of mind is, but are satisfied that it is a force or power of itself and operates through matter, the brain in man being its special instrument of human expression. All modern research of substantial value concurs in this physiological fact.

WHAT SHALL I DO?—G. B.—You are right in thinking that a phrenological examination made by a competent person will help you toward deciding. But you are scarcely right in thinking that such a "prelude," as the Rev. Joseph Cook would say, will guarantee success. As a requisite to success, mental adaptation to the pursuit chosen, is first; but there are other considerations that are very important. One is the taking hold of the chosen vocation with thorough-going earnestness, and mastering its details.

and learning all about it. Patient training is absolutely necessary to success, no matter what one's talents are. Although fitness renders the training easy and gives a degree of facility in practice that the man unfit for his pursuit can not acquire. You speak of "inclination" to this or that. Inclination is not by any means a sign of adaptation. When the circus is in town, every boy thinks that he would like to be an athlete or a clown, and is found practicing the tumbling or the tricks in the barn or backyard. But very few boys would be likely to succeed in such grotesque fields of action. When inclination is more than a passing caprice, and is associated with a consciousness of fitness, the probability of good attainment in the desired direction is strong. A time of waiting occurs, however, to the most industrious before rewards come.

MOHAIR.—F. C.—The genuine fabric bearing this name is of Asiatic production, and is a coarse cloth made of the hair of the Angora goat. In Europe and America the stuff sold under the name is almost entirely an imitation cloth composed of wool and cotton. An inquiry of an experienced drygoods dealer should furnish more extended information. Wool is certainly better for underclothing, and outer too, in all seasons, than silk fiber.

SKIN DISEASE.—W. M.—The trouble your friend complains of would disappear if she modified her living; eating simple food, refraining from the flesh sorts and all stimulants; clothing herself in light, easy-fitting garments; bathing often, and sleeping in a cool bed. Read "Natural Cure," "Digestion and Dyspepsia," and "Household Remedies" for other suggestions.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Denominational Craniology.—

This is the way a correspondent of the *Oc-
tographic Review*, Ohio, analyzes some of the leading Christian sects:

I have lately been listening to some of the

most distinguished clergymen of the city Baptist, Methodist and Presbyterian. It is remarkable how phrenologically these parties are distinguishable. In looking over the congregations you will see marked cranial peculiarities, and adaptations to the several classes of belief. For instance among the Baptists you will observe a tolerable smooth, equalized development, with, perhaps a preponderance of Ideality, Individuality, Hope, Firmness and Self-esteem, and a deficiency in Causality, Mirthfulness and Veneration. In a general way the Methodists are well-developed in Hope, Mirthfulness, Cautiousness and Approbativeness, strong in Veneration, but deficient in Constructiveness, Causality, Comparison and Locality. The Presbyterian shows large Development in Secretiveness, Cautiousness Approbation and Self-esteem. Acquisitiveness is large, and Ideality excessive, with strong Destructiveness. These prevailing sentiments incline the subjects to become religious specialists, controlled by their peculiar temperaments. Among the apostles, had such considerations prevailed, the sedate John would have been the Baptist, the ardent Peter the Methodist and the critical Paul the Presbyterian. But being governed by faith and not sentiment they were not specialists, but whole Christians.

Who Was Right?—At one of the lectures which I gave during the past winter I examined a head in the dark, and pronounced its owner of a low moral nature, and said that he would be governed by passion, and destitute of refinement, and also that he lacked the finer feelings necessary in making up a man.

All this was doubted by some, denied by many, and believed by a very few. But the result.

A short time ago his wife (who had recently received a legacy) gave him a check on a bank in Washington for forty dollars, with which to buy a cow.

Instead of buying the cow he went on a big "spree," and turned up two weeks later in Indiana. Being without money he was obliged to "tramp" it home, where he arrived at last very much used up as the result of his irregularities.

Now, who was right? S. A. LAYMAN.

PERSONAL.

WILLIAM A. WHEELER, Ex. Vice-President, died after a prolonged illness, June 4th last. Thus closed the career of a really worthy and eminent man, who gave the best years of his life to the public service. He sat in both branches of the New York Legislature; he presided over the Constitutional Convention of 1867; he was a congressman for a number of years, and held the Vice-Presidency of the United States for a term. These were all positions of grave responsibility, and he met the highest requirements of them all. It used to be said of him when he was a member of Congress that he possessed more influence than any other member of the New York delegation; that his fellows when in doubt as to what ought to be done on any puzzling measure were accustomed to look to Wheeler for guidance. They had discovered that his judgment was sound, that he kept himself well-informed in regard to everything of moment on the calendar of the House, and that he was never an axe-grinder. In his other public positions he inspired the same confidence. Not a man of brilliant, showy parts, his was the leadership which results from the union of great natural sagacity, sturdy common-sense, with unswerving moral rectitude. Who will take the place thus left vacant in statesmanship and citizenship?

MARRIED.—Rev. Wm. K. Scott and Miss Etta M. Chamberlain, recently from Chicago, April 20th, 1887, at the home of the bride's sister, Mrs. Chas. S. Poor, Omaha, Neb. Mr. Scott, was formerly pastor of the Reunion Presbyterian Church of Chicago, but is now pastor of the Presbyterian Church of Burrton, Kansas.

While a student in the Union Theological Seminary of New York, Mr. Scott attended the session of the Phrenological Institute, in the fall of 1883.

JAMES LICK died in San Francisco ten years ago, leaving in the hands of trustees an estate of about \$3,000,000, to be divided among various charitable and scientific societies. The estate is yet unsettled, but the trustees have drawn over \$100,000 in salaries and have paid out nearly \$200,000 in lawyers' fees. So a contemporary tells us.

He should not be surprised by such petty doings. In the East we should regard the Lick matter beneath notice, as witness the Hoyt, Carpenter and other estate contests.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

Let no man value at a little price,
A virtuous woman's counsel.

Chapman.

Nothing is more beautiful than virtue;
nothing fairer, nothing more lovely.

Cicero.

There are few who conceive how instrumental the tongue is to salvation or condemnation.—*Quesnel.*

He who shall introduce into public affairs the principles of primitive Christianity will revolutionize the world.—*Benjamin Franklin.*

"The massive gates of circumstance
Are turned upon the smallest hinge,
And thus some seeming petty chance,
Oft gives our life its after-tinge."

It is well-known to all experienced minds that our earnest convictions are often dependent on subtle impressions for which words are too coarse a medium.

THE OATH OF HIPPOCRATES.—Date 400 years, B. C. "My life shall be pure and holy. Into whatever house I enter, I will go for the good of the patient. I will abstain from inflicting any voluntary injury, and from leading away any, whether man or woman, bond or free"

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

A man who had a scolding wife, being asked what he did for a living, replied that he "kept a hot-house."

For all of us the question is not at all to ascertain how much or how little corruption there is in human nature, but to ascertain whether out of all the mass of that nature we are of the sheep or goat breed.

A tailor-made woman should never faint in public. A recent case of exhaustion made certain disclosures that greatly weaken our faith in the female form divine.

Mistress (to servant): "Did you tell those ladies at the door that I was not at home?"
 Servant: "Yis mum." Mistress: "What did they say?" Servant: "How fortinit."

German (yawning): How you vas, Hans? You don't know me no more, ain't it?"
 Hans: "Mine frent, if you vas shut your mouth so I can your face see, den mebbe I tell you who you vas."

"I beg a thousand pardons for coming so late," said a gentleman to his hostess. "My dear sir," replied the lady, graciously, "no pardons are needed. You can never come too late."

That wonderful little darkey of Jacksonville, Fla., has turned up again. When asked the other day how he lived, he gave the well-known answer: "In de summer, sah, we lives offen de fishes, and in de wintah we lives offen de sick Yankees."

Bagley: "Going to Newport this summer?" Stubb: "H'm, well, I dunno. Maria inclines to Cape May: Tom wants to take in the Yellowstone; Hortense thinks there is nothing like Saratoga, and Mrs. Stubb has a hankering after Europe." "And where do you want to go?" "Me? Oh, I'll take my outing on the street cars riding to the office every day. Just the same as last summer; just the same."

My Aunt Bethiah.

Indeed, 'tis not a lovely name,
 Though lovely was her life;
 But she was such a comely dame—
 Old Uncle Abel's wife!

She felt a sorrow keenly, but
 Was still alive to fun;
 And often made a dinner on
 Two apples and a bun.

Her genial face and sunny smile
 Kept off a load of sin;—
 She owned a little basket that
 She kept the goodies in.

There dwelt a happy heart within—
 A spirit kind and warm;
 She early made her flannels up
 To shield her from the storm.

Full oft the wretched thought of her
 'Mid winter gales and snows;
 Her warmest blankets covered them,
 Her linsey-woolsey clothes.

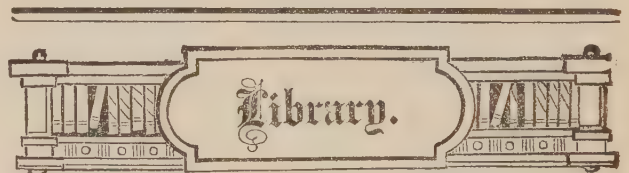
She lived the placid life of one
 Whom no dismay disturbs;
 If sick, she shunned the doctors, and
 Got well on roots and herbs.

Her vision, clear, despite her age,
 Required no aided sight;
 She rose at dawn and went to bed
 At "early candle-light."

So all her happy days were spent
 In works of faith and cheer;
 Her income, half the homestead rent,
 For taxes every year.

Long have I known her work of grace,
 And long enjoyed her smile,
 And welcomed oft her kindly face,
 "Dropt in to stay a while."

C.



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually apply any of those noticed.

HORACE MANN; VIEW OF HIS LIFE AND ITS MEANING.

A few years ago the friends of Antioch College erected a monument on the grounds of that institution, at Yellow Springs, Ohio, to the memory of Horace Mann, who was the first president of that institution, and whose life and character are remembered and cherished by many a graduate. On the occasion of the unveiling of that monument, the Rev. J. B. Weston, D. D., now president of the Christian Biblical Institute, in Dutchess Co., N. Y., delivered an address which received the appreciative commendation of all who

heard it, and now, in response to the request of many, appears in print. It is for the most part a review of the character of the eminent educator, whose name it bears, and signalizes a few of the acts in his public life that show how zealous and untiring his efforts were in behalf of public education and true liberty. The American public is coming to a better knowledge of the work of Horace Mann to-day in the agitation of the *pro* and *con* of mixed schools and the criticism of methods in vogue, and the more it knows of that work the deeper its respect for his wisdom and labors. Dr. Weston's pamphlet is a material help toward such an understanding, and can be commended for its appreciative spirit. Price, 10 cents. For sale at the office of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH.

THE PROPAGATION OF PLANTS; giving the principles which govern the development and growth of plants, their botanical affinities and peculiar properties; also descriptions of the process by which varieties and species are crossed or hybridized, and the many different methods by which cultivated plants may be propagated and multiplied. By Andrew S. Fuller, author of "Grape Culture," etc. Illustrated with numerous Engravings; 349 pp.; \$1.25. O. Judd Co., New York.

The publishers, on the title page copied above, have given a very good summary of the contents of the book. It only remains for us to say that the subjects named are treated in so plain, intelligible a style as to be easily comprehended by the merest tyro in horticultural work. The directions are concise and little is left to be ever guessed at. We are inclined to think that there are some statements made and positions taken that will awaken criticism, but the author seems to write from what he knows—or at least thinks he knows.

We heartily commend the book to the notice of all who are in any degree interested in the growth, culture and propagation of plants. The lady who enjoys her few plants in the garden or house, and the florist and nurseryman—who raise flowers and trees by the acre—will alike find it interesting and useful. An index of thirteen double-column pages is a valuable appendix to the book.

ALCOHOL IN HISTORY.—An account of intemperance in all ages, together with a history of the various methods employed for its removal. By Richard Eddy, D. D.; 12mo.; pp. 481. Price, \$1.50. New York: National Temperance Society, J. N. Stearns, agent.

This new volume is Part II. of a series contemplated by the management of the National Temperance Society, in which the whole subject of alcohol and alcoholism in American society will be considered. It fitly follows Part I., or Dr. Hargreaves admirable "Alcohol in Science." It may be said that this new volume, like the one just mentioned, had been subject to the inspection of a committee before it was put to press. That committee is composed of A. M. Powell, James Black, R. C. Pitman, Rev. A. A. Miner, Neal Dow, and was appointed by the Seventh National Temperance Convention at Saratoga, and much time was spent over the MSS. presented. "Alcohol in History" is positively a valuable addition to temperance literature, and of great use to students who are looking into the merits of this question. It should be mentioned particularly that the writer has introduced important *data* from the legislation of States, north, south and foreign countries, relating to the prohibition or licensing of traffic in alcoholic liquors, and comparative statistics showing results of State interference. It embraces the historical, statistical economical, and political phases of the temperance reform. It contains many rare documents otherwise inaccessible except in the largest public and college libraries, and has numerous marginal and reference notes, representing a vast amount of careful research and painstaking labor. The work has a good general index, making it of easy reference.

FOR BOYS—A special physiology. By Mrs. E. R. Shepherd, author of "For Girls." Illustrated. 12mo., cloth. Price, \$2.00.

It may be questioned by some whether an author, who has shown ability in writing for one sex on a special topic, can do as well in writing for the other. In her "For Girls" Mrs. Shepherd succeeded in making a treatise of high value in relation to the sexual nature of woman; in "For Boys," however, she gives a more extended account of

human physiology, and makes a more elaborate work than most boys require. She begins by a review of the nature of life, and compares its origin in the different orders of animal and plant being; considers the motives that influence the child-mind, and how physical and mental growth are related to habits in conduct, education, eating, exercise, sleeping, etc.; defines the constitution of the well-balanced boy and matured man, the duties of parents, the rights of children; and points out the errors and mistakes that lead to self-injury. The idea that "physical and moral degeneracy go hand-in-hand with ignorance," and that boys are thus "cruelly handicapped by lack of knowledge in regard to sexual matters," is a leading thought in the preparation of the volume.

An appreciative mention of the White Cross movement is very properly made—a work among and by young men that will accomplish a world of good.

NEW TREATMENT of the affections of the Respiratory Organs, and of blood poison by rectal injections of gases, is the title of a pamphlet lately published by James W. Queen & Co., of Philadelphia, in which the method of Dr. Bergeon, of Lyons, France, is described and commended. The rationale of this treatment is the destruction of the toxic germs of disease by antiseptic vapor, and it is in accordance with views that have been expressed in this magazine by the editor. Whether or not the method of procedure is one of the best that can be devised for the purpose in view is yet to be shown, but it is claimed by good authority to have been remedial in several cases of phthisis or pulmonary consumption. The apparatus is simple, and, in careful hands, the treatment can do little or no harm if not successful.

THE ELEMENTS OF MODERN MEDICINE. By Henry G. Hanchett, M.D. 12mo; pp. 377.

COMPANION TO MODERN DOMESTIC MEDICINE. Same author; pp. 86.

Published by Charles T. Hurlburt, New York.

CURRENT EXCHANGES.

The Medical Visitor: Boericke & Tafel, New York.

The Esoteric, is a new candidate for the notice of those who read in the lines of modern mysticism. Monthly. Boston.

The Western Plowman, and *South and West Monthly*. Maline and St. Louis.

Publishers' Weekly: Book-trade journal. One of the oldest in the trade. New York.

The Epoch: Weekly. Discusses moving questions of the hour concisely. New York.

Western Rural and American Stockman. Well-known granger. Weekly, Independent. Chicago.

Builder and Wood-Worker: For architects, cabinet-makers, etc. Hodgson & Bertrand. New York.

Penman's Journal: Expanded somewhat in scope, and as well printed as ever. Monthly. New York.

The Phrenological Magazine: London. Positively growing in interest, and creditable to the publishers. L. N. Fowler, London, England.

Harper's Magazine, in the June issue, gives the results of recent excavation at Susa, with illustrations. Mr. Warner's Mexican Notes III., follow, and *The Kentucky Pioneers*, *The Growth of Corporations*, *On Keeping Birds*, *The Route of the Wild Irishman*, *Great American Industries or a Sheet of Paper*, *American Railroad Legislation*, in which some unpleasant facts are stated, should please the great constituency of the magazine. Harper & Bros., New York.

Lippincott's, for June, has for its leading piece a novel entitled, "The Whistling Buoy" and a considerable variety of topic as follows: "Some Records of Philip Rourke Marston," a poet of some eminence. *The Exchanged Crusader* is a witty sketch, and rather extravagant however. *A Physician's View of Exercise and Athletics* contains several excellent suggestions. *Social Life at Cornell*, *The Germ Theory of Ideas*, are also interesting, each in its way. Philadelphia, Pa.

The Century, for June, has a portrait of the rugged features of the benevolent and industrious novelist Count Tolstoi; besides sketches and admirable illustrations of Peterborough Cathedral, College Boat-racing and the New London Regatta. *Abraham Lincoln*—a history is continued with reminiscences of ante-bellum days in the Senate of the U. S., *How Food Nourishes the Body*, *From the Wilderness to Cold Harbor*, *Memoranda of the War*, and other martial reminiscences. The "Open letters" on Church Union from a Unitarian point of view, will be read by many with care, and somebody asks the seemingly pertinent question in this day of mixed education, "Shall young men go to Vas-sar?"

Christian Thought, for June, contains several excellent papers and sustains its well-earned place among religious monthlies. W. B. Ketchum, New York.

The American Magazine, for June, comes with a good list, and some claim to be regarded as competitor for the first rank among American magazines. Its development has certainly challenged our admiration. Capital and good judgment are not always successful in magazine making, but in the *American* they appear to have struck a golden lead. The Last Remnant of Frontier, A Woman's Experience in the War, Mother Ann's Children, The Nation's Lawmakers—would there were more honest men among them!—The

Universal Language, and the items in "American Pulpit" are inviting. New York.

Scribner's Magazine, for June, contains several portraits of Napoleon, and a commentary on them; another instalment of Thakeray's unpublished letters, which seem to us to be the most interesting thus far produced; A Sketch of Guatemala, entitled An Uncommercial Republic, with a variety of views of notable prints; The Ethics of Democracy, in which the writer endeavors to present the essential ideas that pervade or lie at the basis of legislation affecting such matters as marriage, divorce, socialism, and intemperance. The story department is well sustained. New York.

AMERICAN INSTITUTE OF PHRENOLOGY.

THE ANNUAL SESSION WILL OPEN ON THE FIRST TUESDAY OF SEPTEMBER, 1887, AT 775 BROADWAY, NEW YORK.

The time arranged for this purpose has been chosen with a view to the accommodation of teachers, especially those out of the large cities, who begin their fall and winter duties about the middle or last of October. No class of thinkers is likely to more benefit from the course of instruction in the study of Mind and Character than teachers, unless it may be lawyers and ministers. Business men who are obliged to come into daily contact and mental conflict with customers, and whose success depends upon the accuracy of their judgment of talent and character, cannot afford to be without the knowledge which this course of instruction imparts. A letter just received from a student and graduate of 1875, says: "I remember my course at the Institute with a great deal of pleasure. For the past eight years I have had charge of men in railway service, and there is never a month that I do not see that the time I spent with you is of great and lasting value to me." Teachers, ministers and physicians, also often testify to the fact that instruction in Phrenology and Temperament broadens and enriches their lives and doubles their power to make their work effective. One minister in the State of Ohio, attended a course of instruction and went back to his little parish, when the whole community discovered that some new power seemed to have been added to him as a pertinent and influential preacher. His own congregation increased until they were obliged to use camp-stools in order to accommodate the increasing numbers, and his reputation spread until it reached one of the largest cities of the State, from which he received an invitation to preach, and then a call to a permanent settlement at a salary twice as great as he had ever before been able to command. He understood perfectly, and acknowledged to us, that his knowledge of human character, acquired in the Institute, had given him his increased facility in reaching the human mind, and arousing it to a new line of life and conduct. A lady student of a recent class, said:

"No amount of money would be sufficient to tempt me to go back to my limited sphere, and be deprived of the knowledge which the Institute showered upon me."

Persons who desire to understand Human Nature, and would learn more about the Institute, and its methods of instruction, may send for circular, entitled "Institute Extra," and it will be at once forwarded. Please address,

Fowler & Wells Co., Publishers,

Agents American Institute, of Phrenology,

775 Broadway, New York.

THE
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[WHOLE No. 584



CHANG YEN HOON.

SOME FOREIGN MINISTERS AT WASHINGTON.

IF one who is inclined to the study of physiognomy were desirous of finding marked contrasts in form and expression he would have but to mingle with a company of persons from different nations or people. A court ball at

London or Berlin, a state levee at Washington would provide abundant material for the purpose. Having occasion to examine a collection of portraits representing most of the foreign ministers at Washington, our interest was awakened

by the variety of feature they exhibited. The man who comes to America with authority to treat on state affairs with the chief officers of the nation is no common fellow, no mere product of average culture and experience, but usually a man of superior advantages in education; who has studied and observed in various fields diplomatic and social, and had training fitting him for the peculiar duties of his position. In the transitional era which is ours, emergencies of an international sort occur that demand poise of mind, keenness of perception, tact



ERNEST, CHEVALIER VON TAVERA.

in management, with knowledge of diplomatic history.

Thus the honor and the credit of a nation may sometimes be in the hands of its ambassador. The importance of the ministerial relation in Washington is well understood by foreign courts, so that care is taken to have superior men there. We think this fact is manifest to the eyes more or less phrenologically trained that glance over the heads and faces of the gentlemen that embellish this article. From the representative of our "sister Republic" to the grave dignitary

all the way from China, their appearance is that which we should associate with high mental capability.

The Chevalier Von Tavera, who is responsible to Austria for the preservation of the *entente cordiale* between the United States and that power, is possessed of that feature which Bonaparte deemed essential to good mental acumen, particularly as concerned military affairs, a large nose. In the Chevalier's case it is a nose that indicates, we think, Firmness, courage, Acquisitiveness, sagacity and ready intelligence. The head appears to be prominent in the perceptive range, not very broad in the forehead, but expanding backward, with its greater width high above the ears at Cautiousness, Approbativeness and Combative-ness. In the crown it rises well, showing decision, and self-reliance. The æsthetic qualities are not lacking as appears in the fullness of the upper temporal region, which would impress us that he is refined in his tastes and polished in manner.

According to the published accounts of his life, he is about forty-eight years old; was educated at the University of Berlin, graduating in law. Finding diplomatic service to his taste, he found opportunity to enter it in 1862, and was Secretary of Legation to Mexico at the time of the unfortunate Maximilian tragedy. From Mexico Herr Tavera was sent to various other legations up to 1875, when he was gazetted to Washington, where he served until 1879, when he was transferred to Rome, and afterward to the Foreign Office in Berlin, from which he was accredited to Washington as Minister.

In personal appearance Chevalier Tavera is a well-proportioned man of five feet nine inches in height, with dark hair and full whiskers, of a deep-brown hue, and clear-cut features. He is genial and affable in conversation; a good musician, and fond of the society of musical people.

He is a bachelor, and apparently con-

tent with the celibate condition. The German Minister, Baron Von Alvensleben, has a different nose, fuller eyes, a head more nearly of the round type and a temperament more susceptible and active than the Austrian envoy. He is a man of quick mental impressions, and rather earnest and intense in feeling. The reflective faculties are evidently strong and his view of subjects comprehensive and philosophical. He is a good organizer, we should say, skilful in plan and expedient, ready in suggestion and capable of expressing clearly and fully his opinions.

We think that the development of the head in the crown as shown by the portrait, indicates steadiness, assurance, earnestness and integrity. His temperament contributes to excitability and thoroughness, but he has the guardedness that is given by large Cautiousness and the prudence of experience and responsibility. He is not the man to hold a trust lightly, but appreciates its full value, and holds in much respect the dignity of office and authority. He respects station and expects to be treated with consideration both because of his station and his personal merit.

Baron H. Von Alvensleben, the Envoy and Minister Plenipotentiary of Germany to the United States, is about fifty years of age, and unmarried. The name Alvensleben is an old one in Prussia, the branch from which the present Minister springs is of comparatively recent creation. For two years Herr Von Alvensleben was Secretary of Legation at Washington, from 1869 to 1871, under Baron Gerlot, when the latter was Minister to this country. After Baron Von Alvensleben left Washington in 1871, he was appointed to a subordinate position in the Foreign Office at Berlin where he remained a short time. Then he was sent to St. Petersburg, where he was First Secretary to the German Embassy. Subsequently he was the official representative of the German Empire at Bucharest, in Roumania. He was next

transferred to Darmstadt, a minor position, as Minister to the Grand Duchy of Hesse. Afterward he went as Minister to the Hague, in the Netherlands, from whence he came as Envoy and Minister to the United States.

He has been in the diplomatic service for many years, and is said to be in high favor with Kaiser William, having been appointed Chamberlain to the Emperor some few years ago. In personal appearance he is tall, and of average build; has light thin hair, and a full beard.

Don Emilio de Muruago appears a

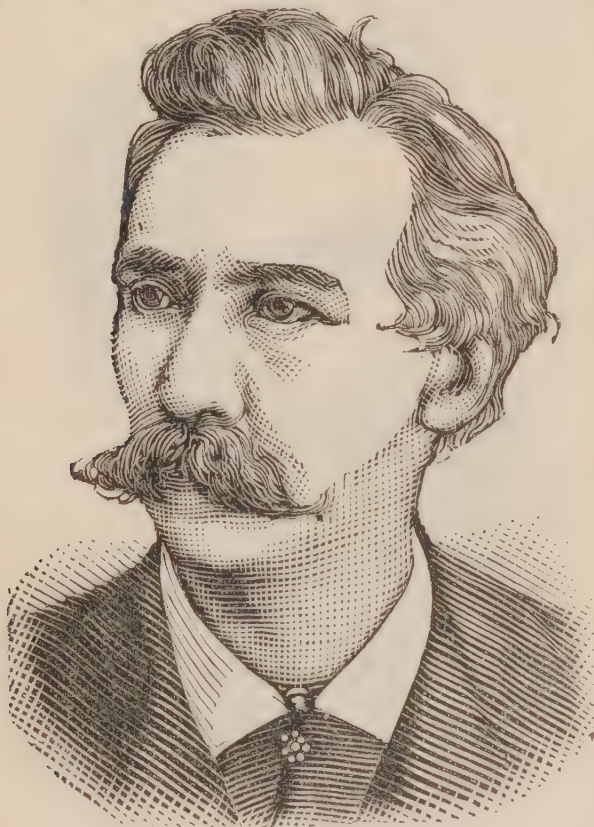


BARON VON ALVENSLEBEN.

gentleman of different traits from those just sketched. His features are clearly defined and show the force supplied by a rather strong motive temperament. He is a spirited, prompt man; his eyes and ears are open and his large organs of perception catch whatever relates to the interests of his office. He is ambitious to succeed in every undertaking, pushing and alert he can not tolerate any indignity real or apparent. His full temples and generally broad head show practical talent in art, construction science and business. His Language is ex-

ceedingly well-shown, and in association with his active intellect and good memory should make him a superior talker and linguist. He has more force, spirit and ambition than tact, or conversation; believes in an open field and a pitched battle rather than in strategy behind breastworks or outpost skirmishing.

Don Emilio de Muruago y Vil de Sola, Minister from Spain to the United States, was born in Bilboa, province of Biscay, in 1831, and at the early age of four years became an orphan. His father, a prominent and distinguished offi-



DON EMILIO DE MURUAGA.

cer in the Spanish army, was kidnapped and murdered by the Carlists. He was the first victim of the civil war which soon broke out. Pensioned by the Spanish Courts, young Muruago soon left his mother country for foreign lands. Graduating from Georgetown College, he completed his studies in College Henri IV, in Paris. Senor Muruaga began his career as *attache* to the Spanish Embassy in Paris, in 1848. In 1849, he was transferred to Madrid. In 1853, he was Secretary of Legation in Montevideo, and the same in Washington in 1857. He has also served his country in Russia.

In 1886, he was appointed Envoy Extraordinary and Minister Plenipotentiary to the United States.

Mr. Muruaga is a widower, having married while in Russia a Russian lady, who died in Mexico where she was buried.

Turning our attention next to the representative of the Court of St. James at Washington, we note a face that is marked by a nose having a decidedly aristocratic outline, as shown by an engraving that is far from satisfactory as a portrait. Sir Sackville West is a high-toned gentleman. England usually sends men who are distinguished by fine manners and a courtly presence to represent her at foreign capitals, and her minister Plenipotentiary and Envoy Extraordinary at Washington is no exception to the rule. Experience, taste, urbanity, kindness, self-respect, independence and courage belong to this character. He has a practical mind, with a disposition to inquire profoundly into anything that interests him deeply. His knowledge of affairs is greatly helped by a ready intuition that guides to clear and just conclusions in almost all cases. His impressions of character are accurate, particularly so, hence in his intercourse with the world or in the negotiations that belong to his official sphere he should be remarkable for the way in which he measures talent and disposition, and can adopt his treatment of people to their individualities with uncommon success. He is sensitive, easily annoyed but has good command of his feelings and is disposed to treat those who arouse his indignation with kindly tolerance, that may veil in aggravated cases a sense of commiseration or contempt for their conduct. The backhead is well-developed we think, which would render him friendly, affable and genial as a companion and considerate and faithful in the domestic relation.

In 1845 when the late Earl of Aberdeen was Secretary of Foreign affairs

Mr. West was his assistant. In 1847 he was in the British Foreign Office, and the same year was appointed *attache* to the Legation at Lisbon and was transferred to Naples in 1849. In 1853 we find him at Stuttgart, and the next year at Berlin. On May 10, 1858, he was appointed Secretary of Legation at Turin and was part of the time there *charge d'affaires*. He was transferred as Secretary of Legation to Madrid June 10, 1864. Here too he was *charge d'affaires*. He was promoted to be Secretary of the Embassy at Berlin in November, 1867, and transferred to Paris in 1879. from this time until 1872 he acted at times as *charge d'archives* and *charge d'affaires* and during the absence of the Ambassador was accredited Minister Plenipotentiary to the Argentine Republic in 1872 and to Madrid in 1877.

Such long service fitted him for higher promotion, and, on the return of the late Sir Edward Morton from the post so long held for his government at Washington, Sir Sackville was sent to be that eminent diplomatist's successor.

Mexico's envoy is a superior example of Mexican citizenship and encourages the hope that the time is not far distant when that close neighbor of ours will cease from popular agitations and factional strifes and become the peaceful and prosperous nation she should be. Mr. Romero has won the respect of those who have official dealings with him. He is highly intellectual and well-educated. The prevailing idea of the Mexican character among Americans is that founded on what is heard in a more or less indirect way concerning that semi-vagabond of the Rio Grande country, the "Greaser." A very different sort of a man looks at us from this portrait of the Mexican minister. We discern qualities that constitute the true man. He is to be sure, a very cautious tactician, strong-willed and resolute, and somewhat distrustful of others, yet as a diplomatist acting for a rather uncertain government, the exhibition of such qualities

may be accepted as entirely appropriate. When he feels that his confidence is deserved it is given with heartiness and a full return expected. Whatever belongs to the domain of beauty and taste, Mr. Romero enjoys in a very unusual degree. He could have made a high reputation in almost any occupation that employs the aesthetic faculties.

Matais Romero was born in the city of Oajaca (called Antigua by the Spaniards), the capitol of the State in the Mexican Republic of the same name, on the 24th of February, 1837. His par-



SIR LIONEL S. SACKVILLE WEST.

ents sent him at an early age to a primary school. At the age of eight he entered the seminary college of Oajaca to study Latin. He remained there three years and then entered the Institute of Arts and Sciences of Oajaca, a civil college, where for three years longer he pursued the study of philosophy.

Philosophy, according to the curriculum of the time, comprised logic, metaphysics, ethics, simple mathematics, physics, astronomy, chronology, geography and political economy.

Having finished his education by a course of law, he went, about the year

1857, to the city of Mexico. There he soon after entered the civil service, taking a position in the department of foreign affairs.

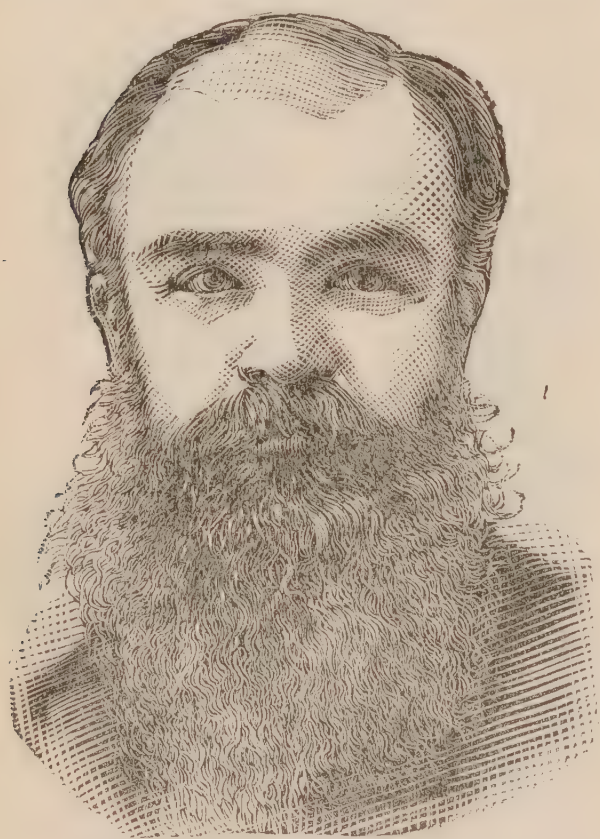
After an experience of two years in this relation, young Romero, at the age of twenty years, was admitted, on Oct. 12, 1857, to practice as an attorney at law. A detailed narrative of the events of Mr. Romero's life, would occupy more space than we can give him. Suffice it to say that all his life has been in the service of his native country, most of it in responsible clerical positions, but in com-

than a line or two of remark on an engraver's production of a photographic view of a face, as a careful examination was recently made of his Excellency's head by Prof. Sizer personally, and we can quote directly from the stenographer's notes as follows :

"This gentleman's head is broad from side to side measuring six and one-quarter inches, and that indicates courage, force and the power that projects itself on the world's work. The faculty which we call Combativeness, which lies at the foundation of assault and aggression, is not so strong in him as we sometimes find it, but the faculty which we call Destructiveness is more strongly marked, and that gives severity, thoroughness, and the power to punish when necessary, and we think that is a Chinese peculiarity. They are not a quarrelsome people, they refrain from noisy opposition until they get wound up, and then, when the conflict comes finally, it means something. If this gentleman were a warrior he would not always be making attacks; he would retain his fire, would wait until the enemy got near enough so that every shot would tell.

"He would make a good financier; would study profit and loss and the judicious administration of financial means; he would understand political economy, what would be best for the nation, and see that frugality was observed in the ruling of the people. He has the policy of diplomacy, does not always tell how much he will do, but waits to find out how he can manage to do, and concedes as little as he can get the other party to accept.

"He has Caution enough to be watchful about every condition that might harm himself, his friends, or his cause, and he does not hurriedly consent to anything; he waits to see one side, and all sides, so as to be safe. He has honesty, integrity, the spirit of uprightness and duty and moral obligation, and he is particularly careful to see that no



MATAIS ROMERO.

pliance with his own desire he was for a time given military duties. In 1863 he was appointed Minister to the United States and remained until 1868. From 1868 until 1872 he was in charge of the Treasury department of his country. In 1882 he was again appointed Minister to Washington. He is very popular at Washington and has shown energy and skill in the negotiation of important treaties between Mexico and the United States.

Of the representative of the "Flowery Kingdom" we have something better

injustice is done to anybody through oversight or carelessness on his part, and if the poorest servant has injustice at his hands he will see that it is made right; he wants his very dog to think he means right by him.

“His love of praise will always keep him on the alert for respectability, decorum, and polite regard for the just claims of other people. If he had censure to administer, or punishment to inflict, he would treat the offender justly but tenderly, and would rectify the error with as little grief on the part of the culprit as he could. He is firm and determined, strong in purpose and thorough in the carrying out of his plans; he expects favorable results but does not magnify the probabilities, and is more likely to calculate within the possibilities than to transcend them.

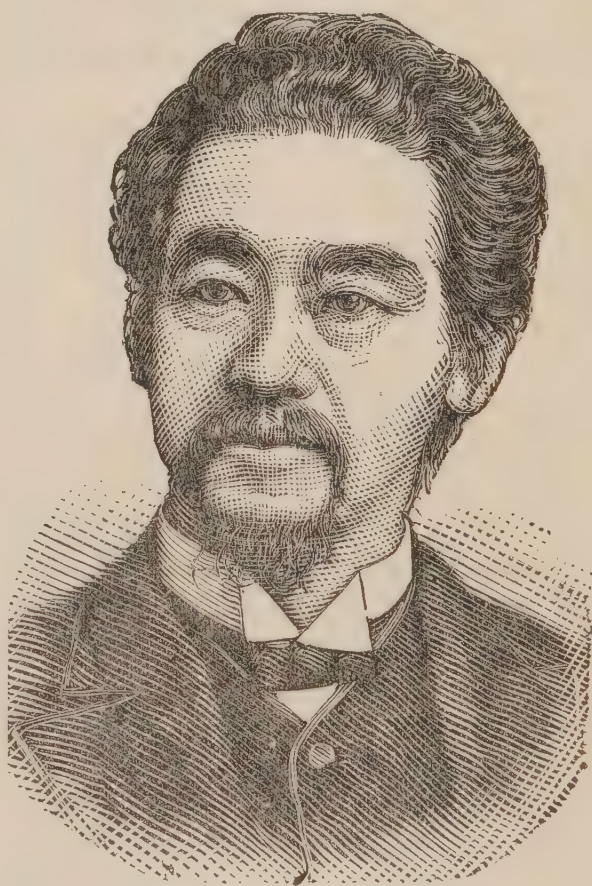
“He is a first-rate reader of strangers, and when a person comes to him and talks, he looks straight at him and reads his motive. He is a great critic of literary, scientific and other topics, because he has the power of logic with which to weigh statements and propositions, and he is pretty well-laden with facts that may strengthen or repress new ideas. He has very strong Order, and likes to have everything systematized and done by rule. He argues and plans for himself, so that as a scholar he is inclined to gather his own facts, and would trust to his own memory of the past in a practical way, judging of the present and predicting the future by his own knowledge and experience.

“He is social, loving, affectionate; fond of children and friends, and his friends stand by him; a friend of his schooldays will remember him and be ready to serve him whenever he gets an opportunity, because he never, as they say, ‘goes back on a friend.’

“The upper section of the head, measuring from the opening of the ear, is high and massive, which indicates power in the higher character of power and will. He is strong also in the base of

the brain and, therefore, strong in all the faculties of this life and the interests of the body, the things secular and physical and that belong to sociability; he is also strong in the higher entities and sentiments which ally us to the higher order of thought and life, so that he should be, with that head, strong in sentiment as well as in the economics and things that belong to daily life.

“It will astonish people sometimes to find him so closely observant. Sometimes servants are surprised to find that he notices things that they did not sup-



TIUICHI KUKI.

pose were important enough for him to notice. In the historical field which presents the knowledge of the past and spreads it out for our instruction, he seems to be at home; when it comes to invention in mechanism, in combining to get desired results, he seems to be successful in that; when it comes to commerce and financial ability, he takes that in, and when it comes to personal matters between man and man, he has the power to make people respect him.

"In the higher culture, the realm of logic, of wit and poetry and refinement, and in the enthusiasms of life he appears to be at home there, and when it comes to the spiritual and immortal, that which relates us to the great Creator of us all, he is not a stranger there.

"He has the signs of excellent constitutional vigor, and when we apply what we call the lifeline to his head, it shows that he belongs to a long-lived stock, and is likely to live to great age."

While the features of our engraving are distinctively Mongolian in type, it would be difficult to predicate of them but the most general impressions, while the living head supplies all that is needed for an extended study.

Chang Yen Hoon, His Imperial Chinese Majesty's Envoy Extraordinary and Minister Plenipotentiary to the United States, Spain and Peru, was born in Canton City January 26, 1836. For repeated gallantry in subduing the rebels in the provinces of Shun-tung and Chili, he was promoted to the rank of Tao-tai Expetant, and entitled to wear the red button of the second rank decorated with peacock feather. He has held the offices of Tao-tai (intendant of circuit with special supervision over customs) of Cheejoo, Tao-tai of Wuhn, Tao-tai of Tai Ming, Commissioner of salt revenue of Shun-tung, grand judge of the province of Ngau Hwny, minister of the foreign office in Pekin, minister élevé of the fourth rank in the Council of the Inner Court, and in July, 1885, after being promoted to the minister élevé of the third rank in the Council of the Inner Court, he was appointed to his present position.

The Japanese minister contrasts strongly with the Chinese official. Of allied race yet there seems to be an impression of western civilization on the man that imparts a peculiar phase of mentality. The Japanese nation has shown itself receptive of progressive ideas and willing to adopt its policy to that of European civilization. Its officials are seen in

the dress and adopting the manners of the people with whom they dwell, while the old exclusiveness or national pride of the Chinese restricts the liberty of their envoys, with regard to assuming the manners and costume of foreign people.

The emissary of the Tycoon appears to be a bright, clear-witted man, easy, self-poised in manner, and competent to deal with the matters that come within his province. He is a native of Tamba, a city some fifty miles distant from the famous Kioto, where so much of the dainty china and porcelain that Ameri-



MME. KUKI.

cans admire is manufactured, and which was the former capitol of the empire. After studying law and philosophy for several years under private tutors in Japan, he made in 1872, an extensive tour in America and Europe, to study the political systems and governments of the Western countries, and upon his return was made Assistant Minister of Education. During the greater part of his term of service in this important position he acted as minister, and was created, at the same time, a Counciller d'Etat, and Senator of the Empire.

In 1878, he was sent to Paris as Commissioner from Japan to the French Exposition. In 1884, he was appointed to his present responsible post. He is one of the youngest ministers plenipotentiary ever accredited to this government, being but thirty-five years of age. Mr. Kuki is a skilful connoisseur of Japanese art, and the beautiful collection of porcelain, bronzes, lacquered ware, screens, and paintings which adorn his drawing-rooms, help to make the Japanese legation one of the most attractive places in Washington. But these attractions are deemed by Washington society to be greatly reinforced by the presence of his most estimable lady, Madame Kuki.

Our engraving is rather defective in many respects, but is the best we could procure, of that exceedingly rare visitor

to America, a Japanese woman of rank. Like the most of her country-women, Madam Kuki is petite in figure, and endowed in a very high degree with those gentle and winning manners which are the subject of admiring comment by European and American visitors and residents in Japan. Soon after her arrival in Washington, Madam Kuki was taken ill, and for several months suffered severely from the effects of the long voyage she had made and the change of climate. Now, however, she appears to be entirely restored to health, and to take part in the movements of society. Her skill in painting and embroidery as well as her exceptional taste in dress have never failed to excite the admiration of every lady, who is privileged to visit the house of the Japanese minister.

D.

THE PROVINCE OF AESTHETICS.

THE name, Aesthetics, was the thought of a German writer, Baumgarten, who wrote upon this science in the eighteenth century. Since that date, many French, German, English and American authors have formulated the best views of their predecessors and their own opinions into a well-defined and orderly Science of the Beautiful, which includes architecture, painting, sculpture, music, poetry, oratory and landscape gardening.

The principles and laws upon which these arts are founded is the province of the science of aesthetics.

There are many reasons for cultivating art, and for studying the history of art. We may thus learn to understand our own powers, and capacities, and find increased profit and pleasure in beautiful objects. The love of the beautiful is a great aid to high thoughts and noble living. True art can never degrade any soul. The sole aim of art should be to raise, elevate and refine human nature, to bring humanity to a

higher level, to teach appreciation of the most beautiful aspects of nature, the finest products of genius. All persons are not endowed with skill to produce beautiful paintings, statuary poetry or music, but all may be trained to a greater or less appreciation of the fine works of the masters.

The study of the beautiful is the sole aim of the aesthetics. Many old German and English authors have taught that beauty in object was not inherent, but was simply an idea of the mind, which made things agreeable, appear more desirable and hence cause them to be termed beautiful. The prevailing theory now, is, that beauty is a simple quality of objects, primary and underrived; and that the true foundation of beauty in all things is expression.

Works of art are judged by the amount and quality of thought they express. Every noble work must have a high, pure thought as its motive. Ruskin wisely says "Greatness of style consists in the habitual thoughts of objects,

which involve wide interests and profound passions " Taking this statement as an axiom, we may say that style in art is less, or greater, in proportion to the grandness or nobleness of the passions feelings and interests which the subject involves. Any work of art which produces a profound, powerful impression upon a wide number of diverse minds and nationalities must have a grand idea as its basis, well-wrought out by the hand of genius. Heart as well as intellect must unite in forming any master-piece in any of the fine arts.

It is generally conceded that art arose among the Egyptians and Phoenecians. If we judge by the testimony of the oldest book in the world, we should ascribe its origin to the Hebrews. The Bible gives the earliest accounts we have of architecture, coloring, carving, embroidery, brass-working and musical instruments, and furnishes the models of early poetry and oratory.

When we examine the great Egyptian monolith in Central Park, we note the symbolical character of Egyptian artwork. Towering upward in one grand unbroken column, it seems to symbolize the aspirations of the human soul for something higher, something unattained towards which it ever reaches. The Sphynx was a symbol of the ever-struggling effort of humanity to comprehend itself, to understand the combination of soul and sense which comprises man. The art of Egypt impresses by its magnitude, its mystery, its calm serenity; it is never beautiful, even when most impressive. It is interesting only from its remoteness from all our ideas, and ideals. Because it is almost all that is left of the mind of those distant ages which saw its birth.

In nature expression is shown by the form, proportions, order and color of the various objects which serve to mark what we call a scene, or what is termed scenery. When the form, proportions, order and color of objects seen as a whole, or landscape, are harmonious and

cause feelings of delight, joy, rapture, to rise in the mind and unfold and entrance the beholder, then we rightly call the view beautiful. And it will thus impress every person endowed with those faculties, which we name order, proportion, size, color etc., and which are primary elements of mind.

True art in imitating, nature, must make expression its central motive. All art may be righteously judged by the quality and amount of emotion which its study rouses in the mind of the spectator of average powers and culture. Any work of art that shows vigorous intellect, easy position and action, pure and sweet color, correct proportions, and is pervaded by the feeling of high and noble purpose ought to be, must be, beautiful.

In the world of nature any object, plant or animal that shows deformity, deficiency, injury, or lack of vigor, gives an unpleasant impression and is deemed ugly. And the same word may be applied to all those works of art which depict anything, or inspire thought which is coarse, vulgar, unchaste, monstrous, hideous, or anyway repulsive. Under this term ugly we may class all battle-scenes, all realistic pictures of vulgar debauchery, and such sculptures as the Laocoon and the dragons, and monstrous creations of wild, uncultured imaginations which have from time to time been created by the hands of many men of genius. The work that is not noble is not beautiful; everything degraded, perverted or misplaced is ugly. Every really beautiful work of art must be truthful in itself, and in its relations. For next after expression comes unity as a necessary element of beauty. Unity of parts and proportions produces a harmony of emotions.

Objects that have no relations, as a single tint or color, or an isolated curve convey little thought; only when combined in the outline and color of real scenes can lines and tints really express ideas.

Variety must be joined with expression and unity in forming the beautiful ; and truthfulness is also necessary. Though nature is the source and fountain of all beauty in works of art, yet an exact, faithful copy of any face, or flower, or scene in its everyday aspect is never a truly beautiful work of art. There must be something of the ideal, a light from the mind of the artist, such as "never was on land or sea," shining through, pervading the whole, giving it an impress of individuality, before it may be termed a work of high art, a really beautiful production. We thus see that beauty comes not from one but from many means of expression, in the product of form, light, color, shade, sound, motion, etc. There must not be great precision of form, yet there must be regularity, balance of parts. Then the varying light and shade upon colors and forms is a vital element of the beautiful, and requires most careful study by the artist. The varying color of water and vegetation in sunlight and shadow can only be appreciated by one who has given much study and observation to the subject.

In art as in nature motion is an element of the beautiful ; the free curves of the wild bird's flight, the meanderings of the meadow brooks, the rise and fall of the waves upon the shore, the swaying of the branches of the forest trees, the graceful leaping of the deer and antelope, all these serve to heighten the beauty of landscape, and the suggestion of these motions are pleasing in works of art.

There is no perfect, absolute standard of taste, from which there is no appeal. The customs, usages and opinions of the most highly cultured members of any community is the only standard.

A standard of taste that is higher than our own is of little value to us, save as it serves as something to work towards, a goal in the distance. Ornament appeals to the fancy, the taste, rather than to any other faculty, and propriety must be studied in regard to its quality, quantity and position. Too much ornament gives an impression of overloading, too little, an idea of bareness, or poverty. Yet there must be great caution used in adding beauty to beauty, ornament to the ornamented, until the object is swamped in its accessories. The dress, or house, or apartments should not be so fine and profuse as to make the owner seem puny and insignificant in the midst of profusion. True art is lost when ornamentation becomes unduly prominent.

The beautiful must always preserve a certain dignity. High art must never be displayed upon unworthy material, or be applied to low or unworthy purposes. Anything that we would have hold its power of impressing us deeply must not be made too common, must not become too familiar. The beauty of some young girls is more charming because it is not universal. The beautiful must hold its own province royally, never stooping from its high position, never descending from the steps of its own proud throne.

AMELIA V. PETIT.

PROGRESS IN ENGLAND.

THE late phases of Phrenology in England are peculiarly interesting. While in Edinburgh, which so long enjoyed the premier position in regard to Phrenology, the science has declined in public esteem, despite the fact that there is a trust, with ample funds, to watch over its interests, in London

with no such public trust it is coming more resolutely to the front. This is not as it should be, and does not bear out the traditional character of the Scotch for life and vigor. It is a disgrace to the Scottish capital that, with the Henderson Trust to dispose of, it is unable to keep open the Phrenological 'Museum. The

collection is unique and should be regarded as one of the treasures of the Scotch nation and a monument to her brightest sons. Yet this collection if not to be actually dispersed, is at least to be merged in the new general museum. The museum, through the supineness of the trustees and the sleepiness of the curator, had long been one of the almost forgotten sights of Edinburgh, except to the disciple of Gall, who would often travel from the end of the world to see and examine its wealth of skulls and busts; but with the transfer of the collection to the proposed new home and the stowing of it away in some back room, mingled, perhaps, with the bones of prehistoric beasts, the priceless labors of Combe and his colleagues will run the risk of being wasted. Efforts have been made to rouse the Scottish press to the imminency of this peril and disgrace, but so far in vain. The papers are dumb on the subject, and the trustees of the Henderson Trust Fund are allowed to wallow on in their sleep of untrustworthiness.

Let us turn from this to a brighter picture. In London a small band of earnest believers in Phrenology have awakened to a sense of the urgent need there is for union, in order that Phrenology may flourish, and have founded a phrenological society under the style and title of the British Phrenological Association. It seems to be modelled a good deal on the plan of the New York Institute, as it aspires to grant diplomas, send out lecturers, etc. The association, was formally constituted in September, and up to the present time it has shown signs of undoubted life and earnestness. The *doyen* of Phrenology in England, Prof. L. N. Fowler, has been very worthily chosen as the first president, while his youngest daughter Jessie A. Fowler acts as treasurer. This young lady has already gained experience in society work in connection with the Women's Temperance Society, and it is greatly to the credit of the new association, that

they have discovered the qualities of so promising a disciple of Phrenology. There are two secretaries. Mr. A. T. Story is the organizing and corresponding secretary, a somewhat ambitious title, but one which may indicate good work to come. We shall see. The second secretary—the recording ditto—is a Mr. Warren, a gentleman not hitherto known in phrenological ranks; but I hear an earnest student.

The Council is comprised of a number of gentlemen of more or less note in connection with Phrenology; but there is more of the *less* than the *more*. There are some names one would have liked to see included; but possibly they will come in time. The monthly meetings of the Society are held in a very central hall, and one identified with good wholesome work, religious, social and political—the Memorial Hall, almost within a stone's throw of Dr. Parker's Temple. By the way, could not the new Association get the Doctor to join them, and make him their next president? The Association needs to be as ambitious as its name.

No particular exception can be taken to the "Articles and By-laws." They are much to the purpose; although it is difficult to see how they can efficiently work the Association on so small a subscription: ten shillings for gentlemen and five shillings for ladies, per annum. But much is to be done by a careful management, as all good housewives know. It is a good idea to have a reduced subscription for ladies; it is an inducement for them to join, especially in this country where the rule is to let the fair sex go in half price or free, so highly is their presence prized. I take it that a society has a double, nay, quadruple chance of multiplying when the feminine element is present.

At the last meeting some very sensible remarks were made by the Hon. Sec. as to the advisability of taking means to disseminate a knowledge of Phrenology other than by the usual monthly meetings. He suggested, that outside propa-

ganda meetings should be held, lectures delivered and the talent of the society, latent or otherwise, brought out, a most valuable suggestion, which the meeting

adopted, and which it is to be hoped it will act upon. The young Association I believe already numbers over sixty members.

THEO. ST. MARTIN

THE NATIVES OF NORTH AMERICA.

PART I.

COLUMBUS called the natives of North America, "Indians," for the reason that on first reaching the shores of the New World he thought he had discovered the extreme Eastern coast of India. The name by common consent has been allowed to stand, for although speculations as to the origin of

interior of the Continent they encountered tribes and nations of Indians at every point from the Atlantic to the Pacific, and from the extreme Northern Coast to the Gulf of Mexico. Authors differ widely as to the probable number of these people when first discovered by the whites. Some estimates are as high as 5,000,000; others as low as 300,000. It is probable that the first estimate is more nearly correct than the latter. Indian traditions add but little to the history which the white man has written during the past three centuries. Spanish adventurers have made incursions into Florida and Louisiana, and established military posts and missionary stations, prior to the settlement of Jamestown in Virginia in 1607, but reliable history of the aboriginal peoples of the territory now occupied by the United States, begins with that first English settlement. Captain John Smith found Virginia inhabited by a confederation of Indian tribes, ruled by an able Chief, Powhatan, who as the representative of his people welcomed his pale visitors as brothers and offered to share the country with them. A few years later when Smith threatened to make war upon Powhatan, the Chief said to him: "Why should you take by force from us that which you can obtain by love." This plea for peace failed, and war between the colonists and the Indians followed. A small remnant of Powhatan's people, the Tuscaroras, now live on a reservation in the State of New York. In 1620 the ship Mayflower landed on the coast of Massachusetts, a small colony of English settlers, Massasoit, king of Massachusetts, received them kindly, and through the



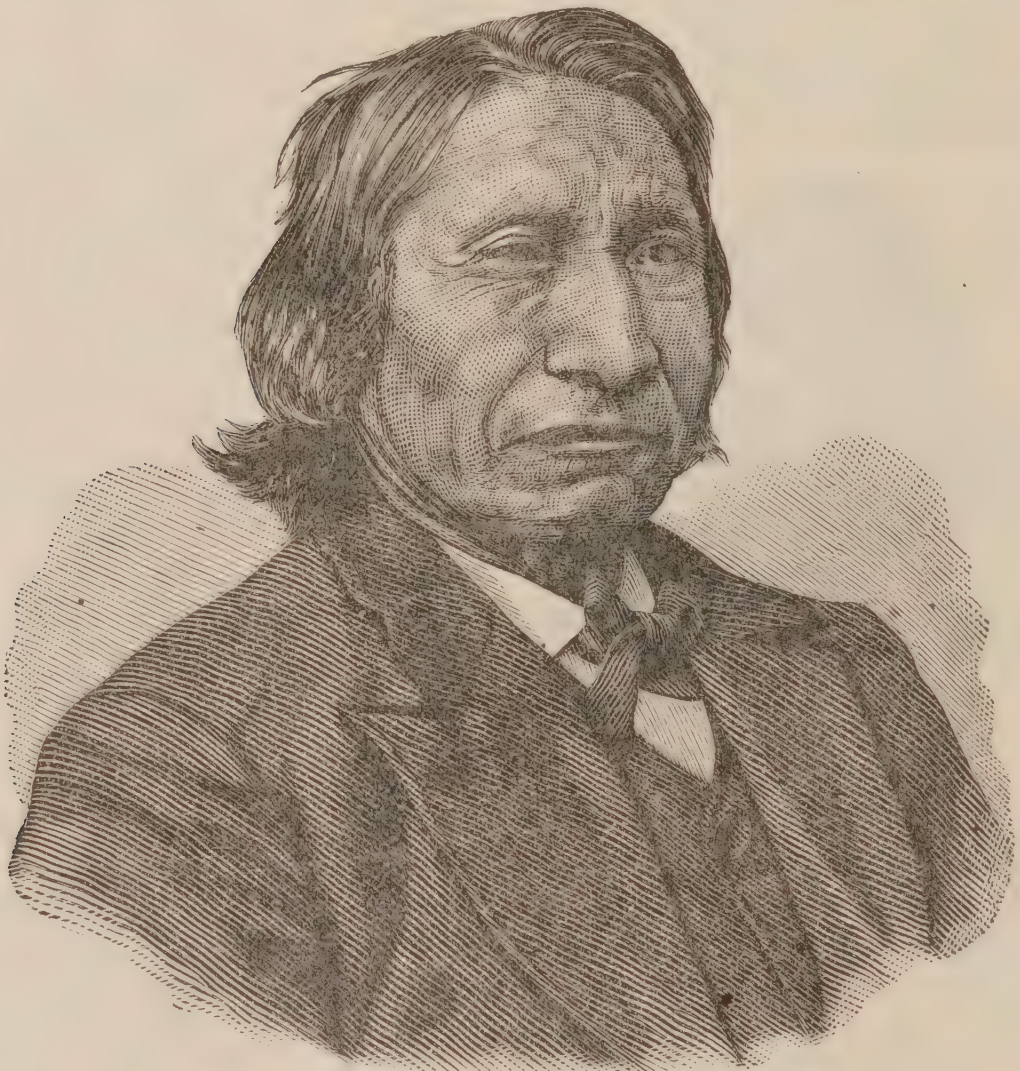
A SIOUX WOMAN.

the Indian tribes, have been rife for almost four hundred years, the matter remains unsettled. Some hold that they sprang from Asia, and others that they are a distinct race, having their origin on the Continent they now inhabit. They are, as a rule, tall, straight, muscular, active, athletic and brave. Their color is a dark bronze; their eyes small, deep-set, with black iris, and their hair is straight and very dark. They are without beard, for the reason that men pull out their beard as soon as it appears, and persist in this during life.

The first European emigrants to America found Indians everywhere on the Atlantic Coast, and on exploring the

hospitality of his people the colonists were saved from starvation during the first winter of their residence in the new, wild country. These Pilgrims, regarding the Indians as pagans, had no respect for their rights, and when strong enough to do so with hope of success, they made war upon them, and after years of conflict practically exterminated Massasoit's people, the Pequod Indians. Massasoit and his son, and successor, King Philip, now hold honor-

In 1681, William Penn sent a colony of Quakers from England to America, with a letter to the Leni Lenapi, or Delaware Indians who occupied the tract of land comprised in the grant he had purchased of Charles II. In this letter he assured the Indians that they should be treated justly and kindly. A year later, Penn arrived in America, and made a treaty with these Indians. He told the Indians that although he had bought the land of the King, he recognized them



MAHPEAHLUTAH; OR, RED CLOUD.

able place in New England history, and are regarded by the descendants of the early colonists as great and good men. A marble monument to the memory of King Philip was erected at Bristol, Rhode Island, a few years ago, by descendants of the men who assassinated him. Monuments to Massasoit, in the form of hotels and factories bearing his name, are found in various places in Massachusetts.

as the real owners of it, and that he desired to purchase of them enough land for his people, and that the whites and Indians should live together as brothers. This treaty secured perfect peace in Pennsylvania, so long as the Quakers controlled the colony, a period of seventy years. The Delawares then numbered over seventy thousand souls. At the close of the American Revolution, 1782,

they numbered fifty thousand. They now number but a few hundreds and these have become citizens of the Cherokee Nation, Indian Territory. Penn believed that the Indians were descen-

occupied the territory now comprised in the State of New York. Of this confederation the Seneca Nation was the largest and most influential. The other four were the Mohawks, Cayugas, Onei-



APACHE CHIEF.

dants of the ten lost tribes of Israel, for reasons which he gave at great length.

New York was colonized by the Dutch from Holland, who, pursued a policy of conquest, disregarding the rights of the Indians. The five nations, known as the Iroquois confederation, owned and

das, Onondagas, and afterwards the Tuscaroras, and of the Chiefs, Red Jacket was the greatest, not the greatest warrior, for Corn-Planter ranked him as a military leader, but as a statesman and orator, Red Jacket has had few equals on the American Continent. He was a

distinguished Council Chief. The Iroquois were allies of the British during the war of Independence, but at the close a treaty was made with them by the United States, to which they

was the most distinguished Chief, a once powerful nation of Indians, originally lived immediately west of the Alleghany Mountains. They defended their homes until nearly all of their warriors were



APACHE WOMAN.

have been loyal. A remnant of this once powerful confederation, numbering less than five thousand, or one-tenth of the former population, now live upon a small reservation in Western New York.

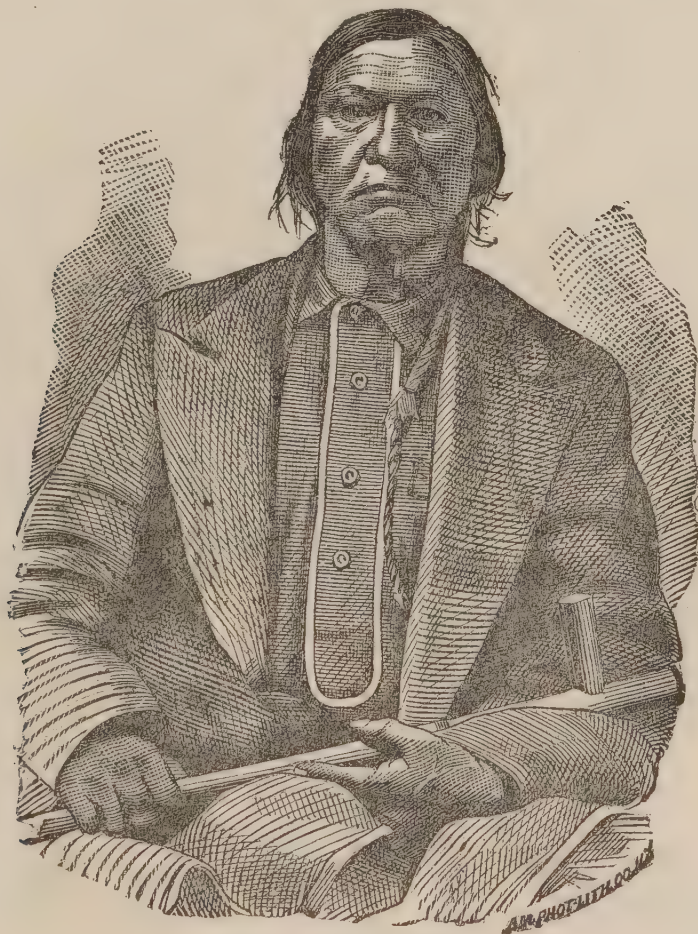
The Shawnees, of whom Tecumseh

slain, when they moved further west by stages as the white invaders extended their settlements, until they crossed the Missouri River, and by treaty in 1865, took homesteads in severalty, and became citizens of the United States. A few years sufficed for the people of Kan-

sas to get possession of their lands and they were removed to Indian Territory and absorbed into the Cherokee Nation. The Ottawas were a powerful tribe who resided on Lake Michigan, and under the lead of the great Chief Pontiac, successfully defended their country for many years against the aggressions of the whites. Pontiac was a great friend of the French, but hated the English and after the French and English war of 1755, he besieged Detroit, then in possession of the English and captured it in 1763. He was killed in battle in

Mississippi. These Indians paid more attention to agriculture than any others, except the Pueblos of New Mexico and California. They raised considerable quantities of Indian corn, beans, pumpkins, etc., which they generously shared with the pioneer whites. Some fifty years ago they were removed to the Indian Territory where they now live. They have a republican form of government, schools, church, etc., and are as civilized and prosperous as their white neighbors in the States.

The principal Indian Nations and



ARAPAHOE—FRIDAY.

1869, and with him the hope of his people perished. The Ottawas are now nearly extinct. The Miamis, once a large tribe, occupying a portion of country now comprised in the State of Ohio, are now represented by a few hundreds who live in Northern Indiana and Southern Michigan. The Cherokees, Muskogees, (Creeks) and Chocktaws, originally owned and occupied the country now comprised in the States of North Carolina, Alabama, Georgia and Missis-

tribes of the great American prairies are the Dakotas, Sioux, Pawnees, Poncas, Crows, Cheyennes, Arapahoes, Kiowas, Comanches, Wichitas, Caddos and Omahas. These numbering now perhaps sixty thousand, are sometimes styled the American Bedouins being more distinctly nomadic than other Indians, and because they raised immense herds of horses, and in their native State lived exclusively by the chase, which they pursued almost wholly on horseback.

They defended their country for years with great courage and skill ; some of their Chiefs are men of just renown, for wisdom in council and skill and courage in war. The names of Wanata, Peskelechoco, Wapashaw, Mocketavate, Mahpeahlutah, (Red Cloud), Spotted Tail, Sitting Bull, Standing Bear, and other

ed by the United States Government, under treaty agreements. The Klamaths, Shoshones, Umatillas, Nes Perces, Yackamas and Piutes, are the chief tribes of Indians on the Pacific Coast, South of Alaska and North of California. These had possession of and roamed at will over the well-stocked hunting



WINEMAH—MODOC WOMAN.

distinguished men of these tribes are indelibly engraved upon the heroic annals of America.

Of the Indians of the Rocky Mountains, the Utes, Blackfeet and Flatheads are the most prominent ; these like those named above have been decimated by war, and conquered, and now live on small reservations where they subsist in part by stock-raising and farming, and in part by rations and annuities furnish-

grounds of Idaho, Washington, Nevada and Oregon, until the discovery of gold in 1849, turned the tide of white emigration to that far western coast. A conflict of races began at once and continued until half the Indians were killed, and the remainder made prisoners, and coralled upon reservations. Smoholler, Joseph, Howlish Wampo, Kient Poos and Moses are the most celebrated chiefs of the Pacific Coast Indians. Kient

Poos, known in history as Captain Jack, Chief of the Modocs, (a tribe of the Klammath Nation) was the most skilful and intrepid warrior among those people. During the last Modoc war, 1872-3, Captain Jack had but fifty-three men, yet with this small force he defeated General Wheaton, who attacked him with an army of four hundred men. The battle lasted from six o'clock in the morning until four o'clock in the afternoon, when Wheaton retreated, leaving over one-fourth of his men on the field dead or wounded. The Modocs claimed not to have lost a man. This was the battle of the Lava Beds, November, 1872. The Indians had the advantage of being entrenched behind strong natural fortifications.

In the spring of 1873 the President sent a Peace Commission to Captain Jack. The chairman of this Commission, Hon. A. B. Meacham, established a truce with Jack, which was violated by General Canby, Commander of the Army of the Columbia, who captured a herd of horses belonging to the Modocs, and surrounded the Indians with a thousand soldiers. The Commission and General Canby met the Chief and his Aids in council under a flag of truce, on the 11th of April. Captain Jack submitted his ultimatum that his horses be returned, the army removed to the position it occupied when the truce was en-

tered into and the Modocs be allowed to remain in their own country. Canby refused, and demanded that the Modocs surrender to him, and be escorted as prisoners of war to the Klammath reservation. The Chief appealed to Meacham, who said: "General Canby is in command of the army. I can make no treaty without his consent." On this being interpreted to him, Jack drew a revolver from his bosom and shot Canby in the face. Another Indian, (Boston Charley) killed Rev. Dr. Thomas a member of the Commission, and Chief Schonchin fired on Meacham, but at that moment Winemah, a cousin of Captain Jack, and acting interpreter, struck the pistol aside, and the ball missed its mark. Two other Indians, joined Schonchin in the attack on Meacham, but through the heroic efforts of Winemah his life was saved. Twenty-one shots were fired at him, seven of which took effect. He fell and from loss of blood became unconscious, and the Indians thought him dead, but he survived to tell the true story of this terrible tragedy, on the lecture platform of the chief cities of America, and write a book on the Modoc War. Captain Jack, Schonchin, Boston Charley and Black Jim, were hung for participation in this assassination. T. A. BLAND.

Cor. Sec'y. National Indian Defence Association.

CHARITY.

"BUT the greatest of these is charity" was the utterance of that great man among men, the apostle Paul, eighteen hundred years ago. and the sentence has come sounding down through the ages in clear ringing tones to the present time. Its truth is echoing in our hearts to-day; but, alas, how little of its beauty and greatness do we see exemplified. If our enemy hunger it may be an easy enough matter to feed him with a few hard crusts that fall from

our table, or on some holiday when bubbling over with good will we might vouchsafe him a slice of cake or plum-pudding. But of the charity "that thinketh no evil," that allows to every one his own right to think and the expression of his thought seems to be a harder matter.

We do not quarrel with one another because our noses are not all of the same length and our eyes of the same color, yet, in as reasonable a way, there is a

readiness to pounce upon one of differing opinions with a savage willingness to have him burned at the stake, if it were only the custom to do such things. That there are such numberless differences of opinion is a truly blessed state of affairs, for if all persons thought, acted and looked alike this would be an extremely dull, commonplace sort of a world.

The golden rule has not its coinage in the instincts of human nature and it is a hard thing for us always to allow others to do unto us as we do toward them. It is so easy, and self-satisfying, too, to see wherein others are wrong, and to condemn all faults and foibles not our own.

The dishonest man condemns his drunken brother, and the hard-hearted man who never did a thoroughly good act in his life looks askance at a weak, unprincipled brother while his whole manner says because thy sin is not my sin, therefore it is deserving of the severest penalty.

In one of Charles Dickens' stories he tells of the inoffensive, good little boy, David Copperfield, who was very ill-treated by his step-father, and the more cruel the treatment the greater became this dislike until a mere sight of the boy would throw the step-father into a rage. So it appears to be a principle of human nature that when the strong and masterful person misuses those who are weak

he comes to dislike and despise them. But once let the stronger tenderly care for the weaker, and work for that one's good even to the denying of self and he acquires a love that will make itself felt as the charity that "thinketh no evil." Our hearts as well as our minds grow with what they feed upon.

Often after years of vigorous, unsatisfying struggle for the attainment of some of "life's empty bubbles," when, perhaps, careworn and misunderstood by our fellowmen we find there is some one whose touch of sympathetic kindness causes our hearts to throb with a quickened joy that revivifies and strengthens us and we exclaim. "Of the good things of life the greatest of all is charity."

There is a sublime beauty expressed in those precious words "Father forgive them for they know not what they do," While all other voices would be raised to condemn, he, whose alone was the sinless life, could look with unbounded charity, not upon sin, but upon the doer of evil. If we all can enter the heavenly school and, sitting at the feet of the great Master, learn to love our neighbor as ourself and then shall we grow up tall and strong in "the wisdom that is from above; which is first pure, then peaceable, gentle and easy to be entreated, full of mercy and good fruits, without hypocrisy."

S. B.

THE LATE TIMOTHY COOP.

(THE FOLLOWING SKETCH OF CHARACTER IS FROM THE PHOTOGRAPHIC ORIGINAL OF THE PORTRAIT.)

THIS head, face and body indicate health, positiveness and power. The fullness across the eyebrows shows practical talent, ability to gather and understand knowledge intuitively; it indicates a critical and a sharp mind that takes objective views, and appreciates the faces and historical activities of life in relation to scholarship, business, and especially the qualities and uses of

things. He was a natural manufacturer; could work by the eye as to form, magnitude and method. He held in solution the experiences of life in such a way that he could awaken interest by conversation in all that he had learned and known. He seems to have been an analyst of character; would know what to say and how to act in association with different kind of men.

He inherited his mother's intellectual keenness and intuition. We think that he could talk to children, and bring his subject to the comprehension of those who are not trained to consider methodical discourse and abstract thought. His head was broad indicating force; it was mathematical rather than logical.

He was firm, self-poised, independent, energetic and brave. The face between the eyes and mouth is a fine indication of vital power, especially of lung

some respects more highly than himself. His was the talent to find the practical issue in all matters that interested him: he would take an abstract subject and somehow filter it through his practical judgment, and it would then go to the thought of others in such a simple and new form as to be no longer dry and wanting in interest to them. In other words he was a natural teacher, able to bring truth out in simple forms, and with definite fullness, so



TIMOTHY COOP.

power and digestion. The face indicates wholesomeness of thought, purpose and feeling. It is a face to awaken the confidence of strangers. No man could look at that face and think of its owner as a bad man. He looks benevolent, generous, sincere, faithful, true, and yet strong.

He had the power to influence men, and to become even the master of persons who were, perhaps, endowed in

that people who conversed with him were disposed to think that they had the whole of it, and if they were susceptible of being so constituted they would usually get the whole of it.

Timothy Coop was born in England, in 1817, May 28, in the parish of West-houghton, county of Lancaster: he died at Wichita, Kansas, on the 15th of May last, having reached within a few days the ripe age of seventy.

He began as an apprentice, in a weaving establishment, and was employed in the early part of his life in the clothing business, at Bolton. What estimation his employers had of his business abilities and his trustworthiness, is shown by the fact that he was sent to open a branch clothing house at Wigan, a place of large industrial activity, midway between Manchester and Liverpool. Some years afterward he became a partner of the house, which then took the name of Ackroyd & Coop.

By the death of his partner in 1854, the entire business came into Timothy Coop's hands. His enterprising spirit, henceforth sought to enlarge his field of industrial activity, until in 1864, he entered upon the manufacture of clothing for the wholesale trade, which finally became one of the largest and most lucrative in England. His operations of buying and selling extended not only over the

British Islands, but to the Continents.

Mr. Coop was evidently an able and far-seeing man in industrial enterprises. The firm, besides the extensive manufacture of clothing at Wigan, and the branch selling houses in various parts of England, has also for years been engaged in coal mining and cotton-spinning. If we mistake not, the firm had to endure a vigorously contested lawsuit against a member of the nobility in the matter of their coal mines, but the sturdy tradesmen came out victorious in the contest.

Timothy Coop was reared in childhood in the Wesleyan, or Methodist faith, and received a deeply earnest religious training, which, doubtless had much to do in giving him that fervency, which characterized his life in after years. About the year 1841, he became interested in the Church of the Disciples, and joined its membership.

M. C. T.

WOMEN SHOULD COMBINE.

IN a paper by Emily Blackwell, M. D. on the necessity of combination among women, for self-protection the following points with regard to the effect of conventionalism on the status of working women in society is simply presented :

No man can fully appreciate the industrial misery of women upon whom devolves the necessity of earning a support for themselves or others. As work in all its forms is still considered derogatory to women, the necessity they are under to work removes them at once, more or less completely, from the only class to which full social respect, esteem, and protection are accorded. At the same time they are regarded as interlopers in the world of industry. It is somewhat discreditable for them to be there; they are unwelcome intruders in spheres properly belonging to men. Hard work, miserable pay, a monotonous life, and more or less social stigma, is the general lot. They them-

selves have imbibed the popular ideas of what is desirable for women, and regard it as the great object in life to be supported by some one else, to escape from the necessity of work, and they do not fully respect either themselves or their fellow workers.

They have no leaders among themselves. In work they are under the direction of, and dependent upon, the pleasure of men who do not respect them as they do masculine workers, or regard them as entitled to the consideration due to non-working women. They are outside the pale of both socially and industrially, and are fair prey in both capacities. They are separated by an impassable gulf from the richer women, who should naturally be their leaders; they have no habit or power of combination among themselves. Each one, ignorant and inexperienced, struggles along unaided, and has no expectation of aid or support, unless it

come to her from some man. Every working-girl soon learns that she has a higher immediate value as an article of merchandise than as a worker, and that the men who are insolent taskmasters to her in that capacity have fair words and money for her in another direction.

For there is one profession for women which is never full; one occupation which has its agents, with bribes and temptations, always at hand. Nor does virtue bring the same reward to the poor that it does to the rich. It does not save them from contumely, from the sense of being socially at a disadvantage. There may be discredit in want of purity, but there is no especial merit in it. To win the approbation and admiration of men is the more or less avowed object of the education of girls. The immense importance attached to dress and personal appearance, to manner and etiquette, teaches them that social attraction is the great object, and all that is inculcated in the way of womanly character tends to unfit them for self-protection. Obedience, self-repression, tact, self-devotion, are drilled into them early and endlessly. Moral courage, self-respect, independence are indirectly discouraged.

There is work to be done among women parallel to that done by the White Cross Society among men. As to these we preach the duties of purity, self-restraint and consideration for others, so we need to arouse women to the value of courage, self-respect and a sense of responsibility to their common womanhood. They must recognize that work is honorable to women as to men; that it is a social crime to allow any girl to reach maturity unfitted for self-support, or unprovided with the training which would make it possible for her to stand upon her own feet when it is necessary. They should feel that the interests of women are one and inseparable, from the very highest to the very lowest.

Combination and united action are, if possible, more essential to women than

to men.[¶] The strength of woman is purely moral force. So long as brute strength is the controlling force in society, women have no place nor chance in it. They are simply sacrificed to the physical needs of the race. But civilization means the predominance of moral over physical force, and the more complete this ascendancy the better opportunity is there for the development of women to their full perfection. But to reach this end, they must develop and exert their own moral force. This must be done not only by individual but by collective action. The highest must realize that she is outraged by the degradation of the lowest, and that her own status is rendered insecure by the industrial misery and isolation of the workers below her. Every woman must learn that her position depends upon the general idea which society entertains of the nature, the powers, the qualities of womanhood, and that every class and rank of women contributes its quota toward forming the general estimate which decides the standing of each individual. Every woman should feel that it is incumbent on her to do her part toward raising this estimate, not only by her personal work and conduct, but by the strength which comes through union, and should lend her aid to organized efforts for self-help and self-protection.

The Dead of 1882.

We walk with gods, nor know that thus we do—

All undiscerning of the face divine;
We breathe ambrosia, and our fingers
twine

With them immortal blooms: yet bitter run
We press, and herbs of grace we drink, in
lieu

Of that sweet cup whose nectar-tints
combine

And shimmer on the god-distilled wine.
Oh, cold, dull sense! too late discern the few.

How they have converse held; though
glowed the heart,

And inspirations grandly came and went,
They did not see the foot-prints, nor discerned

The aspect of the gods; their wings depart;
Too late! too late! the mystic veil is rent—

The ashes dead—the altar fire out-burned.

ELIZABETH OAKES SMITH.

ANCIENT WITCHERIES.

AWAY back, two centuries ago, among the early records of the old town of Newburyport, Massachusetts, may be found the history of the pranks of a roguish lad, who set the whole community wild with excitement and superstitious fear, and hardly escaped causing the death of his worthy grandmother as a witch.

From our present point of view, without the accompanying local agitation to warp our judgment, we can calmly distinguish what may easily be ascribed to human agency, and that which belongs to the overheated imagination.

It is related that strange and weird things happened in the little home of Goodman and Goody Morse down by the frog-pond to the great disturbance of its occupants. Violent and unaccountable noises were heard at unseemly hours. One night while the good couple were in bed they heard a noise as of sticks and stones thrown violently upon the roof. They got up and searched but found nobody, but when they lay down again the same sounds were repeated.

During the day various household utensils disappeared mysteriously from their places and came tumbling down the chimney.

For several nights a large hog was found in the house, though the door had been locked when the family retired. The cattle in the barn were untied and the boy was sent out to see what was the matter when a large frame of some kind fell down on him. When the old people returned to the house after helping him, they found a spinning-wheel upset and many things set upon it, and the pots hanging over the fire were dashing again one another, so they had to be taken down.

Again, an andiron danced up and down and finally went into a pot over the fire, the pot jumped up on the table and turned itself over, spilling the contents; then a tub turned over, and a

pan of bread-dough came down from the shelf turning a complete somerset.

When Mrs. Morse tried to make her bed "the clothes did fly off many times of themselves."

But they were not even allowed to perform their devotions undisturbed. Mr. Morse says, "I being at prayer, my head covered with a cloth, a chair did oftentimes bow to me and then strike me on the side," and when his wife came out of another room a wedge of iron was thrown at her, and a stone which hurt her much, and a shoe came down the chimney and struck her husband a blow on the head.

At last a hint appears which a modern detective of ordinary skill would hardly fail to follow up, for Mr. Morse says, "A mate of a ship who came often to see me, said he was much grieved for me, and that if I would let him have the boy but for one day, he would warrant me no more trouble, and the boy was with him until night, and I had not any trouble since."

But with the boy the trouble returned. Some friends were in the house and declared that the ashes in the chimney corner moved and scattered on them and "*somewhat*" hit William Morse a great blow, but it was so swift that they could not tell what it was. A Mr. Richardson testified that a board flew against his chair, and he heard a noise in another room which he supposed *in all reason* to be diabolical! Many "very dreadful noises" were heard both outside the house and in.

It is really touching to think of poor old Mr. Morse trying to write an account of these astonishing occurrences, and having the "inkhorne" disappear, and his pen vanish when he stopped to dry what he had written, and his spectacles fly into the fire, while the good wife has the cat thrown at her by some unseen power. As this manuscript was intended for preservation, the writer laid it be-

tween the leaves of the family Bible lest it be spirited away, and for one night it remained unmolested, but the next it disappeared and sometime afterward was found in a box.

A friend of the family, one Caleb Powell, evidently suspected what might account for the peculiar state of affairs, and to verify his supposition he stated if he could have with him for a time the grandson and another person whom he named, he could discover the cause of the annoyances, intending to prove that in the absence of the boy and his confederate the tricks ceased. But his benevolent intention to clear up the mystery only brought him into danger, for he was arrested for dealing in the "black art."

One point of testimony against him was that Sarah Hale and Joseph Mirick declared that Joseph Morse had often said in their hearing that if there were any wizards, Caleb Powell was one!

And still further Mary Tucker affirmed that Caleb Powell said, that one day he went to William Morse's house, and as he found the old man was at prayer, he thought best not to go in, but looking in at the window, he *broke the enchantment*, for he saw the boy play tricks, and among the rest fling the shoe at the old man's head.

It seems strange enough that there should have been no straightforward investigation of the causes of the trouble. The people at once fell in with the idea that there must be *diablerie* in it. The charge against Powell, that of "working by the devil to the molesting of William Morse and his family" could not be substantiated, but the Court decided that there was just enough suspicion against him to oblige him to "*bear his own shame* and the costs of prosecution," and with this judgment he had to be contented.

This reminds us of the suit brought by A. against B. for breaking a borrowed kettle. The defence was, first, we never had the kettle, secondly, it was broken when we borrowed it, and thirdly, it

was quite whole when we returned it. The individual who was next suspected was Goody Morse herself, as there must be a witch connected with the affair. Not only the poor people and ignorant people believed in witchcraft as a possible crime, but the better educated classes and the clergy encouraged the belief.

Persons upon whom suspicion lay were avoided as if infected, and by thus being left to the the uneasy workings of their overwrought imaginations at last came to believe themselves guilty of something they knew not what.

The evidence against Goody Morse was no more sound than that against her predecessor. Incidents were brought forward that had taken place many years before. One man reported that at a certain time in the past he had forgotten repeatedly to perform a promised commission for her, and was told by Mrs. Morse that she wondered that his memory should be so bad, and when he went home one of the calves in his barn "*fell a dancing and a roaring*" and was in a very strange condition. To be sure all these symptoms changed as soon as the mother-cow came in at night, but still the witness had no doubt the calf was bewitched by Elizabeth Morse.

At another time the supposed witch visited a neighbor's family where there was a sick child, and expressed a fear that the child would die, and as it did die she was charged with having brought about the result. By means of such testimony the woman was convicted and sentenced to death.

Her husband did not desert her, but petitioned the General Court in her behalf, showing the unsatisfactory nature of the so-called evidence, and denying in the names of them both any fellowship in the works of darkness, and acknowledging God's sovereignty over them. After another hearing of the case Mrs. Morse was reprieved and allowed to return home, where some years later she died peacefully in the Christian faith. MARY WINCHESTER.

"FIFTY YEARS."

Fifty years! how long it seems
 If by glamour of our dreams
 The distance far we trace.
 But if those passed and fateful years
 Are measured by our sighs and tears
 How brief will seem the space.

* * * * *

In early years I loved full well,
 The tales my mother used to tell,
 Of England's Maiden Queen.
 Her gentle, tender, winning face,
 Her woman's heart and girlish grace,
 Outshining royal sheen—
 Of purple robe with ermine hem,
 And jewelled, priceless diadem
 She wore—but not in pride.
 And how the royal wooing sped,
 And how the prince the young queen le
 From Abbey porch—a bride.

And how the royal babies came,
 That each in age, and some in name
 Matched mother's babies well.
 Since then—some royal wedding bells,
 And their slow-tolling, parting knells
 —By ours—the dates we tell.

"It seems so long," "It seems so brief,"
 As we count smiles, or live through grief
 Since that girl-queen was crowned.
 It seems so grand, so high, so wide,
 The march of progress since a bride
 The queen—new honors found.

It seems so sad, the war and strife
 That in the world have been so rife
 Since first her rule began.
 What tomes of history have accrued,
 What obstacles have been subdued,
 By hand and brain of man.
 It seems so great, the march of truth,
 Since she in bloom of care-free youth
 Reluctant sate the throne.
 Stern duties waked regretful tears,
 Perturbed her heart with maiden fears
 Of errs—beyond atone.

The queen has lived to see, and share
 In noble deeds that brave men dare,
 And joyed in them I ween.
 So wide a realm has ne'er been known
 As now is ruled by England's throne
 And her most gracious queen.
 June 20, 1887. MRS. A. ELMORE.

THE CALIFORNIA GREBE AND ITS FLOATING NEST.

IN the lower forms of animal life we are constantly meeting with habits and peculiarities that have their analogues in the life of man. How many things that we have learned of ants and bees, for instance, are like what men do in the economy of self-protection. A curious water bird, the grebe, has a habit that is very remarkable. It is a boat-builder of a sort, and a sailor, so to speak; as the illustration drawn from life certainly shows—

This bird is described in "Birds of the Northwest," by Dr. Coes. He says that he first saw the American, eared grebe or *Podiceps Californicus* in Southern California, where it is very common on the waters of the bay of San Pedro, and in the marshes back of the coast. He found the birds breeding in the pools

about Turtle Mountain, and became much interested in their habits.

"Visiting this locality in July, I was too late for eggs, for the young were already swimming, and, in most cases, fledged. The birds were very common, rather more so than the horned grebe, with which they were associated. Many specimens were secured in their full nuptial dress. The change begins in August, but it is not completed until well into the following month, as traces of the breeding plumage persist several weeks after it has grown faded and obscure. On the breeding grounds, as just said, the eared grebes were more plentiful than the horned, since a majority of the latter breed farther north; but upon the migration, when these come south, the proportion is reversed. Both

species were to be seen together upon all the water courses of northern Dakota when I left the country in the middle of October. I saw nothing notably different in their general habits."

Other observers have found the eared

parents, completely covered over and concealed by reedy material, so that they were discovered by mere accident. The following is his article in the *American Naturalist*.

"In a series of alkali lakes about



THE GREBE AND ITS NEST.

grebe in full dress, and nesting, in various of our Western Territories, demonstrating a very general breeding range. Mr. Henshaw has lately taken the eggs in southern Colorado. He informs us that he found them, in the absence of

thirty miles northwest of Fort Garland, southern Colorado, I found this species common and breeding. A colony of perhaps a dozen pairs had established themselves in a small pond four or five acres in extent. In the middle of this,

in a bed of reeds, were found upward of a dozen nests. These, in each case, merely consisted of a slightly hollowed pile of decaying weeds and rushes, four or five inches in diameter, and scarcely raised above the surface of the water upon which they floated. In a number of instances, they were but a few feet distant from the nests of the coot (*Fulica americana*), which abounded. Every grebe's nest discovered contained three eggs, which, in most instances, were fresh, but in some nests were considerably advanced. These vary but little in shape, are considerably elongated, one end being slightly more pointed than the other. The color is a faint yellowish white, usually much stained from contact with the nest. The texture is generally quite smooth; in some instances, roughened by a chalky deposit. The eggs were wholly concealed from view by a pile of weeds and other vegetable material laid across. That they

were thus carefully covered merely for concealment I can not think, since, in the isolated position in which these nests are usually found, the bird has no enemy against which such precaution would avail. On first approaching the locality, the grebes all congregated at the farther end of the pond, and shortly betook themselves through an opening to the neighboring slough; nor, so far as I could ascertain, did they again approach the nests during my stay of three days. Is it not, then, possible that they are more or less dependent for the hatching of their eggs upon the artificial heat induced by the the decaying vegetable substance of which the nests are wholly composed?"

This bird launches its nest upon the water, and is said to practice the art of a boatman when danger threatens, by thrusting its nest out into the water, and thus placing a liquid barrier between it and the shore.

TO THE INSTITUTE STUDENT OF 1887.

IT has been nearly two years since the class of 1885, assembled in New York City, for the purpose of studying the greatest and most useful of all the sciences, and of receiving instruction from some of the *Old Masters*.

We met as strangers. We came from all parts of the earth. None of us, perhaps, had ever seen any of the others before. Yet, how soon we formed ties of friendship which will never be broken, though we may never see one another's faces again. We all had similar aims—to acquire a thorough knowledge of human nature, to learn how to make the most of our own talents, and increase our capability of doing good. And that we receive benefits inestimable, I think each one will be ready to admit. Prof. Sizer told us in his address, at the opening of the Institute, that the course of instruction upon which we were entering would change

the whole current of our lives; that we could never go away the same as we were when we came together. We could not realize in how great a measure his words would be verified. We were taught nature's laws as epitomized in the constitution of man. We were taught how to live in accordance with those laws, and how to secure ourselves the purest and most exalted degree of earthly happiness. This knowledge is a priceless treasure, and infinitely to be preferred to material wealth. Well might Dr. Oliver say in his address at the commencement, "We are doing for ourselves and for society a work which can never pass away."

Those who have never been permitted to enjoy the pleasures which this knowledge affords, can not appreciate its blessings. But who is there among us that would be willing to exchange it for the wealth of all America.

In view of the glorious privileges which we enjoyed at the Institute, are we contributing all that we can toward the advancement of our noble science? Are we keeping up the interest and enthusiasm which we manifested in our student days? Though separated by many hundreds, some of us thousands of miles, we are, or at least ought to be together in spirit. Can we not perpetuate the memories of those days when we were together, and especially of the day when we met in Cooper Institute to hear the voices of our beloved instructors for the last time, to listen to one another's parting address, when, after the last word was spoken, the class joined with Cady in singing, "Auld Lang Syne," and the very walls seemed to echo the words: "Should auld acquaintance be forgot, And never be brought to mind?"

In what way can we better express our gratitude toward our teachers, our friendship to one another, and our interest in phrenological science than by communicating through the columns of the JOURNAL whatever would be of interest to lovers of Phrenology. Some incident which would have a direct bearing on the subject might be related; some eccentric or otherwise interesting character might be described; some personal reminiscences might be given; or some sentiment might be expressed which could be treasured up as a memento of our class.

There is Parker, who, to use his own words, "drank thrice at this fountain of truth," and who is now engaged in spreading the light of Phrenology among the people of his own State. He might relate some of his experiences in the field which would be of interest to all the readers of the JOURNAL. Dornbrach, in far-off South America, might tell us something about the people there and his life among them. Cady, and Ream, representative teachers, might tell us how Phrenology has aided them in the school-room. Fitzgerald, located as he is in our Nation's capital, might give us sketches of the leading characters in Washington. Thackston, the metaphysician of the class, could give us something worth reading, and the "Daughter of the Regiment" would surely be ready to employ her pen in the interest of human science. A few words from Giles, of the Lone Star State, would certainly be appreciated, even though he never could muster courage to make a speech before the class. Of the others I may speak collectively, as it would require too much space to mention each one. But let all the "brethren" be heard from whenever they can say anything that may help to increase the interest in our science, to cheer one another along life's journey or to demonstrate the value of our course of instruction at the Institute.

H. S. BARTHOLOMEW.

THE LIGHT OF HOME.

My son, thou wilt dream the world is fair,
 And thy spirit will sigh to roam,
 And thou must go; but never, when there,
 Forget the light of home!
 Though pleasures may smile with a ray more
 bright,
 It dazzles to lead astary;
 Like a meteor's flash, 'twill deepen the
 night,
 When treading thy lonely way.
 But the hearth of home has a constant flame,
 And pure as a vestal fire;

'Twill burn, 'twill burn forever the same,
 For nature feeds the pyre.
 The sea of ambition is tempest-tossed,
 And thy hopes may vanish like foam;
 When sails are shivered and compass lost,
 Then look to the light of home.
 And there, like a star through midnight
 cloud,
 Thou'lt see the beacon bright;
 For never, till shining on thy shroud,
 Can be quenched its holy light.

SARAH J. HALE.

CHRISTIAN ONTOLOGY.

PHILOSOPHERS have striven to formulate a rational theory of life. Materialists refer all phenomena to matter and motion of whose mechanical action life and mind are the product. Of phenomena which their theory does not explain they are agnostic. Those who maintain the dual theory of spirit and matter, objective entities and subjective ideas, can not explain or even imagine, how matter can act upon mind, through the senses, and thus create ideas, nor can they conceive how the material universe is created and upheld by spiritual power.

These unsatisfactory theories, have driven many to infidelity and agnosticism. Hence, it is desirable to formulate a theory, that shall harmonize and explain the phenomena of life, and dispel the chilling mists of unbelief.

Reasoning thereupon, we may assume an *Ego*, that feels, thinks and wills; which is conscious of itself, and persists in its personality, that this ego, entity or soul, is robed with a body, or congeries of organs with various functions; that knowledge consists in states of consciousness as all mental philosophers declare, which may be classified as feeling, thinking and willing; it is agreed also that there is a Power, not of ourselves, assumed to be an entity called God, a unit in action and infinite in our apprehension.

Christian philosophy supplements these assumptions and maintains the theory that man is the offspring of God his Father, begotten in his image and as like him as the finite can resemble the infinite, living, moving and having being in him, and drawing sustenance from him as the branch from the vine; that God is an infinite, self-acting being in whom are all things that man can conceive, with whom there is no time, past or future but one eternal *now*; and that through his divine spirit, the expression of God (shall we call it the mother side of God?) all things are created by pouring into or quickening in the soul, the sub-

stance of things designed for man; that such influxes or impressions are formulated or conditioned by man's faculties and constitute his sensuous universe.

The process of life then is the unfolding of human consciousness, from *within* outward as all life unfolds, and not by accretion. The process is continuous, like thought and feeling, and no two instants are alike. Man is as eternal as his Father; begotten before all worlds and the process of unfolding has been and will be eternal. What are called birth and death are the entrance and the exit to and from this æon. Both are transitions. Man dies daily, and is renewed every instant. Death so called is only a more marked transition. Life is a constant flux of phenomena, continually shifting. Nothing sensuous is permanent and at death, so called, all disappears like the baseless fabric of a dream, and a new heaven and a new earth are created.

Matter and things then are but conceptions of the soul conditioned in time and space, and the body, or the temple of the spirit a bundle of organs used by the divine soul, in conditioning impulses and impressions. Man may have had less faculties than now, and may have more in another æon. His universe will be ever, as as now, created through them by the divine influx and be according to his faculties. The Magic lantern illustrates imperfectly the spiritual *modus operandi*: the object glass and lenses, representing the soul and its faculties. In the camera are things whose images are borne by the light to the object glass through which they are thrown conditioned on the canvas. The realities, the things themselves, are behind the glass. So the things of God borne by the divine light of the spirit are projected through the soul, by whose faculties they are conditioned in time and space upon the canvas of life and known in consciousness. The objective is the reflection of the subjective.

Thus, God [the Father, day by day, endows man, his son, with the universe, by pouring through the soul and body, the temple of the Holy Ghost, the various phenomena of life—the *substance* of earth and sky, mountains, oceans, hill and valley, beast, bird, fish, insect; the vegetable and the mineral kingdoms and the phenomena of nature so called. They are thus created every instant by the divine power in which we live and move, and have our being. They are phenomena, appearances as the term indicates, shadows the substance of which is in God and the soul.

Many things are probably in the soul of which he may not be conscious, and he is conscious of many that his soul does not condition sensuously. Such are love, hope, gravity, chemical affinity of which he has nevertheless powerful impressions.

The story of Eden represents the human soul in which God has planted all knowledges, and waters them by the four rivers of willing, thinking, feeling and spiritual discernment. There he walks now as of old by his spirit and is recognized by the pure in heart whose soul is his kingdom. He is thus the *substance* of all existence, the base of all being, the light of all life. Consciousness of this presence is to know God and life eternal.

God is spirit and can only be spiritually discerned, and all his works are spiritual manifestations. Man's soul is spirit-like in substance and in so far the Father and the son are one. The Father reveals himself to the son as has been explained in the facts and truths of human feeling, thinking and willing. God is in heaven or in infinite love, wisdom and power, and the son is in heaven or heaven in him so far as he advances in love, wisdom and power. Thus the kingdom of heaven is at hand even in the soul. The Father endows the Son with the universe, and all things that the Father hath the Son may enjoy as his soul unfolds.

Jesus Christ strove to reveal this divine philosophy to human understanding (as may be inferred from fragments of his teaching) and thus bring the true life and immortality into life, declaring that the kingdom of heaven is within man and not afar off above the sky or in the realm of phenomena; that every good gift is from the Father; that *out* of the soul life issues, and not in through the senses; that the spirit quickeneth all things and the flesh profiteth nothing, that man must be born again of the spirit, see things from a spiritual point of view, overcome the world of sense as he did to enter that kingdom, feed on heavenly manna and have within him a well, springing up into everlasting life, that God is a spirit to be worshiped in spirit with the door of the senses shut.

The way into the kingdom of heaven is narrow and few there be who find it. They seek in things phenomenal and temporal, what can only be found in things spiritual and eternal. They grasp shadows with backs to the substance. With minds filled with the rubbish of sense, the things of this world, the love of riches, the lust of the eyes and the pride of life, with ears and eyes ever turned toward the outer world they heed not the voices and visions within. Only by becoming like little children, abandoning fine conceived notions and sensuous delight, emptying the heart of the world so that it is clean and pure, turning the eyes and ears inward with faith in God, the Holy Ghost and the spirituality of man and the unity and interaction of this trinity, can one enter consciously into the kingdom of heaven.

By faith we may lay hold of this and a still higher life, and our spiritual vision become so unfolded, that we may see angels ascending and descending.

“Tis faith whereof our lives are scant,
O faith in God, for which we pant,
More faith and fuller that we want.”

Yes, loving faith in the active presence of the divine spirit in all phenomena.

It is thus that the atonement (at-one-ment)—is made, and the Father and the Son become one.

By this philosophy we may account for the power of faith, inspiration, prophecy, miracles, telepathy and spiritual manifestations. As I believe in my heart so am I. By faith I am now what I am; by faith I am healed, for as the soul is so is the body. It is the soul that doth the body make. Faith can remove mountains for as I believe so it is. Jesus Christ revealed its character and power in his miracles.

All things are potentially in the human soul, as in the divine spirit. Some things are latent and others premonitional in consciousness, as visions or impressions before they are sensuously expressed or revealed in phenomena, and their expression in words is prophecy. A highly sensitive soul may have premonitions of events years before they are conditioned in phenomena.

As all existence of which I can be conscious is centered in me, my soul permeates all things, and there is thus in me a basis of universal life. An impulse at one point may be felt by a common sympathy, though not recognized at all points. Such is telepathy. I assume that each person revealed to me has his universe as I have mine. We can only sympathize in what we have in common.

As all phenomena are conditioned soul impressions and impulses the phenomena called spiritual manifestations may be revived impressions, memories, or premonitions of phenomena in the mind. Unless revived by the divine spirit they have not real life in them, but are a species of unwholesome phantasms like dreams and hallucinations, and to be avoided. Real life by the divine spirit has in it a power not to be mistaken. Its phenomena are conditioned so as to be tested by the senses and faculties of the soul.

As all phenomena flow through the soul into consciousness they partake of

man's imperfections and, groan and travail as man does to be redeemed and raised to a higher life. There will be imperfections in phenomena while there is imperfection in the faculties or man's mind through which or by which they are projected or conditioned. As the defective eye or glass deforms the subjects projected through it, so the defective faculties deform phenomena projected through them. Hence I share the vices or sins of humanity and nature because they exist as far as I know them through me. Thus I bear the sins of the world which will not be redeemed until I am perfected.

The divine Father might have made my faculties less faulty, but such was not his good pleasure in this æon. He might pour into my soul the joys which his love prompts, but such is not his wise order. He makes me realize light by darkness, pleasure by pain, joy by sorrow. He might have satisfied all my desires without toil, as he has many. No skill of mine could have perfected light, air, gravity and chemical affinity. It may be that the soul at a former period or degree of development aspired and prayed for them as we do now for further spiritual light and consolation. Our faculties may have been less numerous than now and may yet become more in this or another æon. We may have had feeling without thought. Further evolution will come by faith, aspiration and obedience, so that *here* may be the sweet fields of Eden on this side of Jordan.

This divine philosophy dignifies humanity. Man seems no longer a worm creeping with reptiles among things, but lord of the world through whom all things are created of which he is conscious. He is fast subduing all things to his will, animals, plants, minerals and the forces of nature so-called; they all wait on him as their master.

How highly may man be esteemed beneath whom are suns and stars, and the universe of consciousness! There is

a well within him springing up unto everlasting life, a divine spark that sin can not entirely obscure. All men are branches of the same vine, and humanity is a brotherhood essentially

Of souls with but a common thought,
And hearts that beat as one.

Hence as I judge I shall be judged, as I mete so shall it be measured to me. As I wrong another I wrong myself; as I forgive I am forgiven. The objective is ever the echo of the subjective.

It has been man's high privilege to interpret the spiritual significance of phenomena as they have been revealed to him. As mountains and the sky have been uplifted in his soul, he has felt their majesty; the sunrise and sunset have taught him splendor; the lily and the rose have inspired the sentiment of beauty; from the tiger he has learned fierceness, from the dove gentleness, from the dewdrop purity, from rocks firmness. Children have inspired love, misery pity. All sentiments, knowledge and ideas are the essence of phenomena, extracted as they have passed through his soul. Exercising the faculties of intellect, sensibility, will and spiritual discernment, it has secreted from the facts and truths of consciousness, the vast world of thought and feeling, constituting the humanities. Poets, seers, persons of delicate sensibility or acute conceptive powers have penetrated the divine arcanum and revealed its treasures which are the wealth of humanity, embalmed by poets, and artists in language, literature, painting, sculpture, architecture, poetry, music and the sciences. Not a line of light nor shade of joy or pain could be spared without marring the symmetry of the humanities. How different would man have been had God revealed through him a different world with no night, sun nor sky, no mountain nor ocean, no flowers nor animals. O Father divine! how infinite are thy wisdom, love and power! aeons can not exhaust them!

"Eye hath not seen nor the ear heard nor hath it entered into the mind of

man to conceive what shall yet be revealed to him." As the soul increases in purity, delicacy and power dull subjects will be transfigured and take on a higher spiritual character. The rocks may break forth into singing, the floods lift up their voices and all the works of God may indeed praise him and magnify him forever. The dullness and blindness are in our minds. They being quickened by his spirit, all things will be quickened to higher life and beauty.

Christian philosophy teaches then in brief that God is the Father of man whom he begot in his image before all worlds and who holds the same relation to him as the branch to the vine; that all things are in God and given by the divine spirit to the human soul, conceived in consciousness, conditioned by the human faculties in time and space and are thus known: that the soul's faculties are feeling, thinking, willing and spiritual discernment; that the soul is clothed with a body and organs to aid in projecting or realizing the facts and truths of the soul which is immortal and in another æon may have other faculties, but in any case a universe will be evolved by the influx of divine impressions into the soul to be conditioned by the then faculties: that sin consists primarily in unbelieving or denying the being of God and the action of his Holy Spirit, or believing him outside of our souls and regarding phenomena as substantial verities and not as spiritual manifestations rooted in God and the soul. To believe him as ever present in our souls and revealing himself by his divine spirit constantly in all the phenomena of consciousness, to know and feel that we are thus brought near to God our loving Father and live in him is indeed life eternal here and hereafter.

This rationale of life is indeed gospel—glad tidings—a pearl of great price, that should dispel the mists of materialism and infidelity and establish Christianity as the true Ontology.

J. O. W.



HEALTH PAPERS.—NO. 5.

“**B**UT the testimony of the doctors is against you.” Well, yes. Men of all trades and professions usually go along in the old ruts doing just what they have been taught to do, and thinking as they have been trained to think. If they have doubts about the correctness of their theories or the reliability of their methods, they do not sound a trumpet and proclaim it from the house tops. But some of them have spoken.

Sir Robley Dunglison quotes from the eminent Dr. Stokes of London in reference to a practice prevalent among physicians—administration of purgatives—these words:—“Now I will ask you can anything so barbarous as this, be exceeded in folly or mischief by the grossest acts of quackery? * * * Practitioners will not open their eyes. They give purgatives day by day, a very easy practice, and one for which there are plenty of precedents; but it is fraught with the most violent consequences.” (See “Materia Medica” Vol. I. page 176. Prof. Charles A. Lee, (Notes to Cope-land’s Medical Directory; pages 175 & 176.) says, “Another very prevalent cause of indigestion in this country is the excessive use of cathartic medicines in the form of pills. Were we to give the amount of the latter annually swallowed in the United States, the statement would not be believed. * * * Much of this evil is doubtless owing to physicians who

have been too much in the habit of pouring down drugs empirically in every case of illness, slight or severe, in order to humor a popular notion that the *materia medica* must furnish a remedy for every disease, and a popular prejudice that a want of success is a sure indication of poverty of resources on the part of the practitioner.”

Prof. S. G. Armor, late Dean of the Long Island College Hospital, writes: “Drugs are administered, patients recover, and we suppose we have cured them, whereas our remedies may have had little or nothing to do with their recovery. Very likely it took place in spite of our drugs. We have no distinct instructions in the natural history of disease,—I mean uninfluenced by drugs,—and hence can not tell what belongs to nature and what belongs to art” (New York Medical Journal, Jan. 1873.) He might safely have added that we are pretty certain to claim all that is good for art, while we set down all that is bad to the credit of nature.

Prof. N. Chapman, of the University of Pennsylvania,—who stood at the head of the medical profession in America, says: (Materia Medica, Vol I., page 3.) “Medical conclusions differ very widely from every other species of evidence. We cheat ourselves with a thousand illusions and have imposed upon us still more deceptions.”

It is not necessary that I shall enforce this remark by the enumeration of any examples. No one who is more conversant with the practice of the physician need be told how often our deductions have proved erroneous and how little confidence is to be reposed in those pompous recommendations with which medicines are daily promulgated."

Sir Astley Cooper, one of the most renowned English physicians of the present century, says: "The Science of medicine is founded upon conjecture and improved by murder."

Sir James Johnstone, editor of the *Medico-Chemical Journal - Review*, London, confirms Dr. Cooper's opinion in the following language: "I declare it as my conscientious conviction, founded upon long observation and experience, that if there was not a single physician, surgeon, man-midwife, chemist, apothecary, druggist or drug on the face of the earth, there would be less sickness and less mortality than now prevails."

Dr. John Mason Good, the noted medical author, is quoted thus: "The science is barbarous jargon and the effects of our medicines in the highest degree unsatisfactory, except indeed that they have destroyed more lives than any war, pestilence and famine combined."

Oliver Wendell Holmes is reported to have said, "It were better for mankind, but bad for the fishes, if all our drugs were cast into the sea."

Martin Payne, M. D., L. L. D., (see his "Institutes of Medicine," page 541), expresses himself thus:—"The most violent poisons are among our best remedies. They operate upon the same principle as the remote causes of disease. We do but substitute one morbid action for another."

Dr. W. W. Hall, late of *Hall's Journal of Health*, in ("Health by Good Living," page 35,) uses this expression; "Medicine, even the mildest, is essentially a poison and effects a desired result in proportion to its poisonous quantities and qualities. It cures by setting up a

disease greater than the original which it seeks to cure."

The good Dr. Abernethy, is represented as saying;—"There has been a great increase of medical men of late, and upon my word, diseases have increased accordingly."

Stendel facetiously remarks:—"You take the stomach to be an express charged with carrying forward to the correct place all packages, pills, powders, and mixtures entrusted to its care, but which, from excess of business, seldom performs its work satisfactorily."

Hecker, quoted by Koepke, in "Dietetic Healing," (page 47), speaks thus:—"Our methods and our medicines must be considered as very common causes of the diseases they are designed to cure."

These quotations, which might be greatly extended, afford matter for reflection. Many of the brightest lights of the medical profession, in Europe and America, seem to place a very low estimate on the art curative in common practice. The wonder is that seeing its defects so clearly, they are still too much in the fog to understand that the radical error is in their theories and not in the application of them. Clinging to old ideas because they have grown venerable by age, and hoping to reform them and thus to secure the best results they overlook the importance of substituting better, because more natural as well as more rational, methods. Health and disease bear a definite relation to a sound philosophy. The practitioner who fails to recognize this may be esteemed learned and honorable in his profession. He may be a good neighbor and a good citizen. In every relation in life he may sustain the best reputation. But all this can not compensate for results following an unphysiological and irrational mode of medical practice. Medical lore may make men seem profoundly learned, but they are valuable only so far as they aid in correcting our theories harmony with natural laws.

T. S. GALLOWAY, M.D.

GYMNASTIC TRAINING.

DR. Hitchcock, of Amherst College, has been carrying on for the last six years, a careful study into the physical measurements of the students under his charge, and has obtained results that differ materially from the popular impression regarding physical development. He has taken the measurements of 1,258 students, including forty-seven athletic men belonging to the base-ball and football teams, and men who have taken prizes at athletic exhibitions. He makes a separate group of these athletic men, and finds that their average height is greater than that of the average student by only four-tenths of an inch! "Of the fifteen men," says Dr. Hitchcock, "who took first prizes in 1886, four were above and eleven below the average height of the college; and of the nine first prize men at the gymnastic exhibition three were above and six below the average height." That which is true respecting height is also true respecting all the bone measurements. The bones of

the athletic men are usually but a small fraction of one per cent., larger than those of the average man. Even in the muscular measurements the difference in favor of the athletic man is only 3.3 per cent. In the tests of strength the difference is but 7.2 percent. Dr. Hitchcock draws from these statistics the deduction that in making athletes "physical gifts count for less than the energy of will, which is put upon the muscles. It is the intelligent training, and not the big measures, which determine the standards of excellence in our athletic feats and sports."

All this is certainly encouraging to small men, and accords with our own observation of the development resulting from special exercise of the muscles. It shows very clearly that the difference between the athletic and the untrained man lies more in the fact that the athlete has learned how to use his muscles to the best advantage rather than in the possession of greater natural strength.

A CANDID DOCTOR.

ONE of our exchanges has a letter from one of its subscribers in which he states certain plain things with regard to the "doctoring" needed for common ailments. For instance he says:

Some years ago the writer was laid up by a very badly injured foot. He even got so low that there was a slim chance of his ever being any better. People would come in and say, "Why don't you try this or that? The doctor isn't doing anything for you." So I asked him one morning if there wasn't something known to science that would help my foot to heal up? He replied, "I am sorry to say that there is not. We can only keep it wet with dilute acid, and let nature work." I knew he told the truth, and was satisfied. With some natures, perhaps, a harmless sub-

stance, put on with strong assurance that it would surely cure, would have been best, so strong an influence has the mind on the body; hence our often wonderful so-called "faith cures." My doctor knew me, and knew that the exact truth was what I wanted, although it was a sad admission for science to make, in view of all the healing (?) salves and ointments that our mothers used to have.

I once had a very hard cold, and wife sent for the same physician. He came and looked me over and said, "Keep covered up warm in bed, so warm as to be rather uncomfortable, and you will be all right in a day or two." Not much medicine for two dollars surely; but it proved to be all I needed. In some places, I presume, he would have given some bread pills or sweetened

water, "a teaspoonful every other hour." Now, this man is thoroughly posted, and up to the times; and what does he do when he feels "billious?" Take medicine? Yes, the very best kind. He gets out his horse and buggy and drives down to my place. Then he puts on an old suit of clothes, and, with dog and gun takes a long, rapid tramp through the woods and fields, until the sweat runs from every pore of his body. When tired out he comes back, puts on his dry clothes, and after a few doses of this "medicine," goes home all right. This has been his practice for many years.

How foolish, then, for us to dose ourselves with injurious things, which the most intelligent physicians who know all that science has yet taught, on this point, wouldn't think of touching! And

how much more foolish, and even wicked, to stuff the same down the throats of the little innocents, every time they cry or are fretful! There isn't a single drop of medicine in our house of any kind. We have always let nature take care of all little ailments, doing what we could to assist her by good care, and for larger ones called an intelligent physician.

I know it is hard to sit idly by and see loved ones suffer, hence we try to prevent it by giving them pure air, sunshine, feeding them properly, and seeing that they take plenty of exercise. Sickness usually comes as the result of violating the plain laws of health. It is nature's protest against ill treatment, and nature is the greatest physician on earth, and seldom loses a patient if given a fair chance.

FIFTY-TWO CENTENARIANS.

PROFESSOR Humphrey, of Cambridge University, England, has prepared a series of tables, in the course of which he gives many curious facts regarding the lives and habits of fifty-two persons said to be one hundred years old. Of these at least eleven, two males and nine females, actually attained the age of 100 or more, a fact confirmed in their cases by baptismal certificates and other records. Others of Dr. Humphrey's cases must have attained very nearly the hundred years. One of his cases reached 108 years, while one died at the alleged age of 106. Not one case was reported as having attained the age of 110. Yet several popularly reputed instances have been given in which that age is mentioned as the period of death. "There is a natural pride about longevity which tends to invest its subjects with a halo of romance, and to obscure the actual duration of life." Professor Humphrey, while making this remark, maintains, with reason, that there is no fact of medicine more fully established than the by-no-means infrequent attainment of the

centenarian age. The case of M. Chevreuil, the distinguished Parisian chemist, whose centenary was recently celebrated in France, may be quoted to show that the advanced age in question is compatible with a fair degree of active intelligence. It might seem that the hackneyed phrase about man's "second childhood," is not to be taken as invariably implying mental weakness or decrepitude; but may occasionally mean an apparent revival of the powers which in early life are budding forth toward their more perfect development. Lady Smith, at the age of 103, was a brisk and lively person, took an intelligent interest in the world's doings, and showed none of the emptiness of ideas and general weariness of mind which one is accustomed to associate with very aged people. Miss Hastings, of Leamington, at the age of 103, was accustomed to remark cheerily to her friends, on bidding them good-bye "Pay me a visit when you next come to Leamington. I shall like to see you and hear how you are going on." The fact that women preponderate over men in

the lists of centenarians is again shown. In Professor Humphrey's cases the proportion was thirty-six women to sixteen men. He tells us that the comparative immunity of the gentler sex from the exposure and risks to which men are subjected, and the greater temperance in eating and drinking exhibited by women, are the chief points in determining their higher chances of longevity. Of the thirty-six women, twenty-six had been married, and eleven had borne large families. Of the twenty-six who had been wives, eight had married before they were twenty—one at sixteen, and two at seventeen years of age. Twelve of the fifty-two centenarians were discovered to have been the eldest children of their parents. This fact, adds Professor Humphrey, does not by any means agree with popular notions that first children inherit a feebleness of constitution, nor with the opinion of racing stables, which is decidedly against the idea that "firstlings" are to be depended on for good performances on the course. The frames of the fifty-two centenarians, generally regarded, were of the spare build of human architecture. Gout and rheumatism were, as a rule, absent. "It seems," says Professor Humphrey, "that the frame which is destined for great age needs no such prophylactics, and engenders none of the peccant humors for which the finger-joints (as in gout) may find a vent." One of some eight centenarians in which the finger-joints were stiff and deformed, gave a lucid explanation of the cause, when he remarked that he "had always drunk as much as he could, and always would do." The toothless condition of old age is natural enough, and certain advanced philoso-

phers predict a time when highly evolved mankind will have no teeth at all, and when their food will be largely of fluid nature. Yet out of the fifty-two aged people, twenty-four only had no teeth, the average number of teeth remaining being four or five. Artificial teeth were used in only a few cases, but Dr. Humphrey is of opinion that the art of the dentist is a decided aid to the maintenance of health, and to the prolongation of life. The upper teeth, it is interesting to observe, had disappeared at a greater rate than their lower neighbors. This, it appears, is a constant occurrence in advanced age. Long hours of sleep were notable among these old people, the period of repose averaging nine hours; while out-of-door exercise in plenty and early-rising are to be noted among the factors of a prolonged life. Not the least important of the facts elicited in this study, are those relating to the temperate habits of these particular centenarians.

Number eight on his list "drank to excess on festive occasions." Another was a "free beer drinker," and number thirty-five "drank like a fish during his whole life." It somewhat molifies the effect of this startling statement, however, when it is discovered that he could never get very much to drink, and probably only exhibited the fish-like tendency as opportunity served. Twelve of the fifty-two old people had been total abstainers for life, or nearly so; and most all were "small meat eaters." There is nothing, after all, very novel in Dr. Humphrey's conclusions, that moderation in all things, added to a sound frame and a reasonable care of health, are the prime conditions of old age.

AN "EMERGENCY" CABINET.

IN every house, especially where the family is large, there should be some provision for accidents, and sudden attacks of painful disease. A contemporary describes such an "emergency"

cabinet, as a box or closet arranged to hold a variety of articles, such as wide and narrow bandages of muslin neatly rolled and ready for use, the former for cuts or hurts on the body or limbs, and

the latter for wounded hands or fingers. There should also be a packet of court-plaster, a roll of diachylon or adhesive plaster, pieces of old linen, lint, cotton, a small bottle of collodion for cuts, old muslin for mustard plasters, pins, scissors, and other necessities that will suggest themselves, and are known to good housekeepers.

Among useful things to be added to the above are such following simple remedies, as essence of peppermint, spirits of camphor, some first-rate olive oil, aromatic spirits of ammonia, water of ammonia, a little alcohol, common salt in fine powder, bicarbonate of soda, and a box of mustard.

The aromatic spirits of ammonia and

camphor should be kept in every house where there are aged persons, as they are subject to sudden attacks of faintness, and both these agents afford relief and help to restore impeded circulation of the blood.

Mustard is a valuable nauseant, in cases of suspected or accidental poisoning. It may here be added that copious draughts of tepid water taken until vomiting ensues, and thereafter repeatedly until the poison is supposed to be thrown off, is a good remedy to use until the help of a physician can be procured. If pains are felt in the bowels, give copious injections of tepid water also, and rid the system in both ways of the poison as speedily as possible.

ECZEMA.

THIS term from a Greek word signifying to double up, applies to a class of skin eruptions rather than to one simple form, a class including the most common of cutaneous disorders, such for instance as salt-rheum, tetter, milk-crust, scald head, shingle, &c. These occur at all ages, the infant, middle-aged and old being subject to them. They have their acute and chronic stages and may in the majority of cases be traced to hereditary influences and therefore indicate constitutional degeneration.

Anything that produces swelling or hyperaemia will be likely to cause an eczematous affection. Local irritation, heat, friction, poultices, chemical stimulants, exposures to the sun or a pungent atmosphere are among the exciting causes for its appearance; nerve conditions may lead to it, by producing disturbance of the circulation and consequently impairing the nutrition of the nerve; distressing phases of eczema, such as the erythematous and vesicular are due to disturbed nerve functions.

The deep causes of an eczematous disease lie in the condition of the blood. A mode of life and habits that tend to

impair the blood, and embarrass the general circulation may be expected to interfere at length with tissue changes and the cutaneous excretions. An examination of the structure of the skin and its apparatus for the elimination of waste matter shows the importance of maintaining it in an active state, otherwise the glands and ducts must become loaded and clogged, and in time produce smelling and eruption.

The skin is a great excretory organ besides serving as the complete investment of the hard and soft structures of the body. Its discharge of waste in the perspiration is constantly going on in health, through the pores, or openings I have named. While these little sweat tubes are rarely more than one-fourth of an inch in diameter yet their number is so great, 700 or more to the square inch, that the grand total of their work in the course of a day, done as it is quietly and without consciousness on our part, amounts often to more than two pints of fluid.

By this the blood is freed from excess of water, particles of waste matter, the dead, used-up substance of the tissues

are expelled and the heat of the body is regulated. Hence if the ducts and pores are choked and the skin can not act the system will suffer, fever of some kind result, if the obstruction persists, or eruptions occur by which nature will secure an abnormal and troublesome outlet for the effete matters.

Symptoms—Each of the many forms of eczema has its peculiar indications, from the simple redness of the skin to the encrusted, pustulous variety of impetigo that makes life almost intolerable. The common expression of eczema as we find it among old and young is an eruption of numerous small vesicles on a swollen and reddened base, which is succeeded by a moist inflamed surface, upon which crusts are frequently formed. This is considered the acute stage of the affection. In its chronic form it is usually dry, and may bear a resemblance to that obstinate malady known as psoriasis or dry tetter, although it lacks the thick, white scales with abrupt margins which are met with in the latter disease. A burning or itching sensation is usually a symptom, and often a distressing one. In infants eruptions appear by preference upon the face and about the ears, and assume a moist form.

In some cases pustules develop, and their contents dry into thick, unsightly crusts (milk-crusts). This eruption in infants has rarely if ever any connection with teething, as is supposed by many; and it is an error that any harm can possibly result from its speedy cure.

When the prevailing symptom is redness the affection is called erythematous; if swelling and pimples form it is papulous. The eruption may be pustulous; in which case it indicates that the excretion has a poisonous character incident to an extreme alteration of the cutaneous tissue where the disease is located. A severe exudation of the icherous type is sometimes met with and indicates much systemic debility. The variety known as salt-rheum is very annoying, appearing anywhere on the body, the hands or

legs especially being invaded by it. It frequently makes its appearance on the legs of old people, and is then symptomatic of an enfeebled circulation due to inactivity or a want of general systemic tone.

Treatment — Skin affections are “blessed” with multitudes of remedies; one can not take up a medical magazine and not find a communication from some one describing a new way to treat a case of psoriasis or scald-head or impetigo or something else cutaneous. It must be admitted that the indications of eczema, however simple the attacks, differ very much in different persons and it would appear therefore that the variety of remedies suggested was well-founded. But in tracing functional or constitutional causes we shall usually find that laws and principles of a comparatively simple nature have been broken by the patient, and he may be persisting in irregularities with a knowledge of their troublesome consequences. There may be a predisposition to disease of the skin, but a discreet regard to hygienic habits offsets its manifestation, and in such a case the person may be warranted in thinking that a persistent obedience to law and propriety in his everyday life will in time rid him of the unpleasant association.

In the acute form of eczema the employment of directly healing applications is useless and better avoided. “To do nothing,” says Rayer, “is the best treatment of acute eczema.” All irritants are especially detrimental. A careful diet and the *rest* of the affected part, which includes, of course, the avoidance of irritation of all kinds, will in time operate favorably. Scratching with the nails is a most fruitful source of aggravation and must be stopped by all means.

In the chronic stage of eczema the local treatment includes such a procedure as this: 1, to detach the scales and crusts which surround the affected parts; 2, to dry up such parts as are still moist; 3, to remove the infiltration, swelling and desquamation of the skin.

For the first, applications of warm water with soda soap, that made with vegetable oil being preferred; castile or palm soap is good for the purpose. A bland oil is serviceable also, and is found to be less unpleasant in some cases than water for cleansing the skin. For the second an impalpable powder, such as starch flour or fine fuller's earth when soft, dry cloths are irritating. For the third, a wash or lotion of the oxide of zinc or boric acid, or sweating the part with a waterproof covering. Sulphur and tar are among the articles highly commended by specialists in the treatment of skin diseases and their application externally is often followed by relief, but in chronic cases no permanent benefit is to be expected unless the patient adopts a diet that is nutritious and non-irritating and avoids all exposures that may have an aggravating tendency.

I was asked on one occasion to prescribe for a boy who had been a sufferer for three or four years with an aggravated form of pityriasis. The most approved treatment of the schools, including arsenic, sulphur and mercury had been tried without improvement. I advised the daily cleansing of the skin with the purest soap and warm water, keeping the limbs so wrapped with light dressings as to prevent irritation, and feeding the boy with the simplest food—no flesh meat, sugar or salt, or stimulating beverages being allowed, but ripe fruit in the natural state or stewed being given with his bread or porridge. In a few months the boy's condition had greatly improved and his father wrote me that he had much hope of a complete recovery.

In all skin affections it is of the first importance that the habits should be regulated in strict accordance with the principles of hygiene, otherwise no permanent improvement can be expected from the local or internal treatment, whatever it may be.

H. S. D.

Mrs. Smith, an old friend, whom you had not seen since she and your sister were at school together. You had a very pleasant talk until supper, when you gave her your arm and took her in to supper. When some one came along with a few glasses of wine on a waiter and offered her a glass, you saw her shudder as she said, "No!" and you wonder why Mrs. Smith, who didn't use to be so particular about such things—not only refused but shuddered when she said "No!" You can not tell why?

I can tell you. You went on with your talk, and a little flirtation, did you? I won't say you didn't. She was very gay, and she seemed very glad to forget herself, did she? Very well. I am very glad you gave her that one hour of the evening. I can tell you where she went after the party was over. She went home, the latest person from the party. She was glad it was late; for her husband had not come home. She sat and read an hour, and her husband did not come. She wrote for an hour, and her husband did not come. She sat at the piano for an hour, but he did not come. At length between three and four o'clock there was a noise at the door, and two policeman held him in their arms. She knows them well by this time. It happens so frequently, that she knows every policeman on the beat. They bade her goodnight. She had locked her child's room, that he might not abuse him. She dragged off his neck-cloth and coat, and sat there until he should fall into a stupid sleep.

She is the woman who refused the glass of wine with a shudder. You thought she was gay and bright. I know her story, because I am her minister. They have a sort of a skeleton in the closet, which we are permitted to see and you are not. And, when we see that skeleton, do you wonder that we sometimes say pretty sharp things about moderate drinking, and the temptations offered at parties?

WHY SHE REFUSED.—You say you went to the party last night, and you saw

REV. E. E. HALE.

NOTES IN SCIENCE AND INDUSTRY.

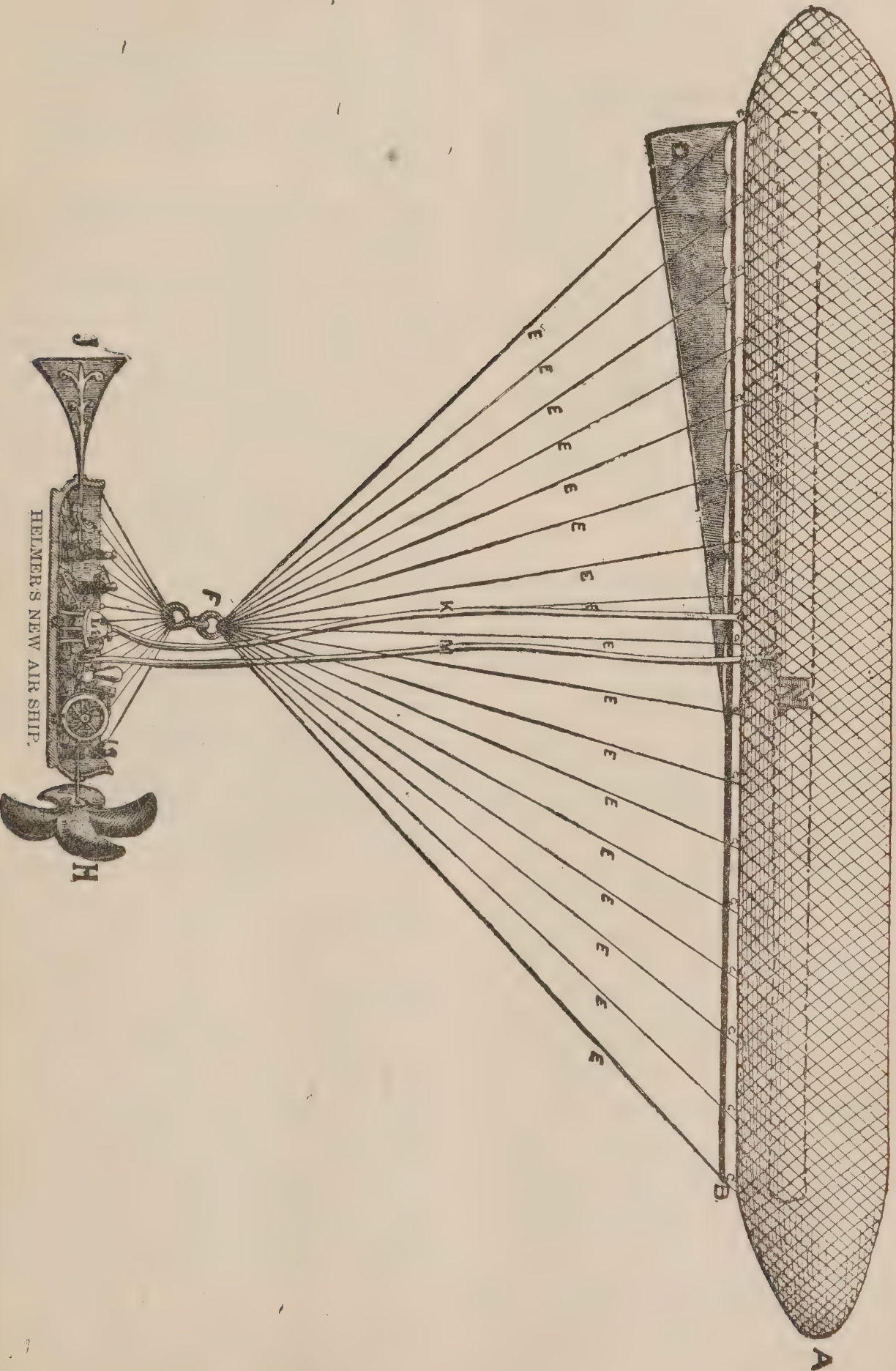
The American Science Association, will hold its meeting for 1887, in New York City, beginning on the 10th of August and continuing for one week. From the interest exhibited by the local committee and by many leading citizens of New York, this promises to be one of the most notable gatherings of scientific men and will have its influence on the summer life of the city. The sessions of the different sections into which the Association is necessarily divided, will be held at Columbia College, the use of which has been kindly tendered by the Trustees. The president of the Local Committee of Arrangements is Dr. F. A. P. Barnard, the local treasurer is General Thomas L. James and the local secretary is Professor H. L. Fairchild. The vice-presidents are Chauncey M. Depew, Mayor Abram S. Hewitt, George William Curtis, Vice-Chancellor Henry M. MacCracken of the New York University, Professor J. S. Newberry, Morris K. Jessup and Judge Charles P. Daly. The whole committee numbers nearly five hundred. There is a large Ladies' Committee, of which Mrs. A. S. Hewitt is chairman, Mrs. Nicholas Fish, first member; Miss Winifred Edgerton, secretary; and Mrs. Sylvanus Reed, treasurer. A number of receptions and excursions have been projected for the entertainment and instruction of the hundreds of members who come from a distance.

A New Air Ship.—To the Editor of the PHRENOLOGICAL JOURNAL.—Dear Sir: Having, as I believe, thoroughly studied the problem of aerial navigation, the logical conclusions I have arrived at seem to me so evident and simple, that when explained, a common understanding can grasp them. Let me occupy a little space in your useful columns with a description of my idea. In the accompanying drawing, A is the longitudinal balloon always held in a horizontal position, by the attachments beneath. B represents a lightly constructed frame to which is attached a stationary sail D, which has for its object to keep the point of the balloon at A straight to the wind. It is thus

seen that all the resistance which this balloon offers to the wind is confined to that part where the cone ends—a small point of its surface. Two balloons of like diameter will therefore offer an equal resistance to the same current, though one be a mile longer than the other. Fastened to the netting of this balloon are the cords destined to support the passenger car. The outer cords are of such length as to form two sides of an equilateral triangle, at whose apex a swivel F, from which the passenger car is suspended, enables the latter to swing freely in any direction of the compass, *independently of the direction of the balloon overhead*. The screw H in this instance is in front, and by its simple revolution sucks in the air. The rudder J enables the helmsman to steer in any direction by the action of the wheel H just the same as on any steamer. If instead of having the wheel in front, it is placed at the back and either above or below the rudder J, its mechanical action will be the same.

This action being of a very positive kind will give movement to both the passengers car and also to the passive balloon overhead. It of course goes without saying that this wheel will have to be driven at a very great velocity to enable the craft to steer against the very formidable air currents frequently encountered. But as this is a matter of a few horsepowers more or less, and as the lifting medium can by my method be greatly increased without increasing the balloon's resistance to the wind, the question of velocity requiring any amount of power, is adequately solved and only a matter of auxiliary experiment.

Now as to fuel to drive the propellor. A surplus of the gas in the balloon is forced down to the engine L through pipe K. This is effected by pumping ordinary air into a smaller balloon N, inside of balloon A, through the pipe M. "But," says one objector, "if you pump in so much air, you may burst your balloon, and come down quicker than you went up?" Not so! My pump is provided with an automatic safety valve which can be set so as to act under one-quarter-power pressure or even less.



Another asks: "If you consume your gas for fuel, how can you keep up in the air?" the answer to this objection is that I can ship several hundred or thousand cubic yards of gas in excess of that needed for lifting purposes. As Professor Morse demonstrated telegraphy, or Fulton steam navigation, so I believe this simple contrivance will practically demonstrate the principles in which the air will yet serve as a highway for all nations, and the coming "*ship*," be as much faster than the locomotive, as the latter is faster than the obsolete stage coach.

With an enterprising syndicate I am willing to make a test experiment of my invention, and to share both the ducats and laurels, (especially the laurels) resulting from it. Believing my mechanical propositions to be self-evident and in strict accordance with natural principles their reputation is challenged. Respectfully yours,

N. HELMER,

Give The Horses Time To Eat.

—When spring work begins, there is such a hurry that the temptation is great to get the horses to the field as soon as they have swallowed their grain ration and a few mouthfuls of hay. Nothing is gained by so doing. It is when the horses are first put to hard work—severe exercise takes from the digestive organs the energy needed for the digestion of large quantities of food—and put on full feed, that indigestion most often begins. And indigestion at this time means loss of appetite, colic, rough hide, loss of flesh and weakness later on. If the horses are given their grain, mixed with stover, cut, and all moistened, and are allowed time to eat it, and a half an hour afterward for rest and digestion, they will work enough, faster and harder to make up the time, will not suffer from indigestion, and will keep in good condition. The horse should be given full ninety minutes for its noonday meal. It needs this time for both rest and digestion; and in the end time is gained by giving it the ninety minutes. If the horse has been at very severe work, it is well to let it rest fifteen minutes before giving it any food. The stomach is in no condition to receive food immediately after severe exertion. It must be borne in mind that what is severe labor to the horse, the first two weeks at the

plough or harrow, will not be so later. At the beginning, its muscles are soft, and labor is more severe upon it than may be supposed. Observance of this and care in watering and feeding, with time given it to eat and partly digest its food before being put to work, will avoid the use of "condition" powders and other nostrums, and are much better generally.

The Convention of Experts in Insanity at Detroit.—The Association of Medical Superintendents of American Institutions for the Insane, held its forty-first annual meeting in Detroit on the 14th, 15th, 16th and 17th of June. A large attendance and much interest signalized the session. Dr. H. A. Buttolph, of New Jersey, the retiring president, opened the exercises, and delivered an address on "Insanity or Mental Derangement," in which he reviewed the nature of insanity and specified many of its causes, and indicated the prime factors of a system of classification. This address was replete with data drawn from a very long professional experience, and pointed to special organic centers of mental faculty, as the key to a clear understanding of mind in both the normal and pathological states. At a late session, Dr. Buttolph presented views on the organization and management of hospitals and asylums for the insane.

Among those members whose papers also prompted lively discussion, were Drs. Richard Dewey, of Kankakee, Ill., Edward Cowles of Somerville, Mass., J. Draper of Brattleboro, Vt., H. P. Stearns of Hartford, Ct., W. B. Goldsmith, Providence, R. I., and O. Evarts of Cincinnati, O. Dr. Draper's paper on "Etiology in the Classification of Insanity," was a spirited and vigorous presentation of views that obtained close attention on account of their original and independent thought that pervaded them.

Receptions and excursions filled up the time of the association very pleasantly when not on duty in the chamber of conference, and the members have reason to remember the good people of Detroit, because of their hospitality and courtesy.

Thin Plates.—Though the ordinary method pursued by gold beaters will produce leaves of that metal so thin that more than 4000 are required to make a pile one

considering that each layer of molecules millimetre (about one-twenty-fifth of an inch, in thickness), vastly thinner gold leaves may be obtained in another way. By electroplating a known weight of gold upon one side of a sheet of copper foil of given dimensions, a gold coating may be secured upon the copper whose thickness is readily ascertainable by a simple calculation; then, by using a suitable solvent, the copper may be removed when the leaf of gold will remain intact.

Experiments have shown that in this way there may be obtained sheets of gold mounted on glass plates which are not more than the one-forty-thousandth of a millimetre (one-one-million of an inch) in thickness, some specimens, indeed, being estimated at not more than the one four-hundred thousandth of a millimetre—a thickness or thinness that is about one two-hundredth part of the length of a wave of light. Taking Sir William Thomson's esti-

mate of the size of the finale molecule and corresponds to one page of a book, the thinnest of these gold films would make a pamphlet having more than a hundred pages.

Artesian Wells in the Desert.—

Respecting the plan of Colonel Landas for fertilizing the African desert by means of wells, Sir R. Lambert Playfair, in the course of a consular tour in Tunis, has visited the ground where the first well was sunk, and reports most favorably as to the success of the project. A space of 735 acres has been cleared, and sown with cereals and lucerne, a vegetable garden been made, and a nursery of young trees planted. Two other wells are being sunk, which on completion will irrigate 7500 acres of land. The Bey of Tunis has conceded to the company 25,000 acres of land, which they can select themselves from districts which are at present of no value.



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H. S. DRAYTON, A.M., M.D., *Editor.*

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INDEFINITE, YET QUITE LIKELY.

A TEACHER of intellectual philosophy, in one of our leading universities, has published a large book in which the results of the later observations of experimenters in nerve function are collated and reviewed with evident care, and as evident endeavor to avoid the bias, that the metaphysical mind is likely to mani-

fest in some respect, when dealing with topics of psychology.

The dialectical habit, which much study of philosophy tends to impress upon the intellect, especially of one who occupies the chair of metaphysics in a collegiate institution, is prejudicial to a perfectly candid dealing with those physiological questions that bear upon the constitution and functions of mental faculty. We notice here and there in this author's work, the influence of 'this habit; it inclines him to carry his criticism at times to the extent of dwelling at too great length on the uncertainties and difficulties of reaching definite results by experiment, and now and then rather captiously assume, as demonstrated, inferences that accord with metaphysical doctrine. He appears to be inclined to accept the idea of functional localization in the brain, yet solicitously sets the observers in array one against another

so that the reader, while he is disposed to thank the author for his industry in accumulating in one book the opinions of so many authorities on localization, finds himself in doubt, as to whether or not anything has been established by the experimentalist.

This author, who is professor Ladd of Yale, has devoted most of his attention to the work of the German observers, particularly Exner, whose special collation of pathological cases, while of value in itself, supplies data for reasoning toward a negative conclusion almost as much as toward an affirmative. A survey of the experimental field, however, appears to lead him to conclude among other things that: "Inasmuch as the functions of the different elementary parts necessarily depend upon the manner in which they are combined and connected the composite parts or organs thus formed must also have certain normal functions. But such composite parts or organs have, of course, a definite locality; hence, the functions of the nervous mechanism must be more or less definitely localized. Nor can the principle be suspected of a disposition to stop short off and abdicate its authority, when we reach the region of the cerebral cortex. There is nothing in the structure of the cortex, to show why the general law of differentiation of function should be inapplicable there. On the contrary, everything in both its anatomy and physiology indicates that the principle of localized functions does apply in some sort to the cerebral hemispheres."

It must be confessed that a vast amount of experimental "provings," has been necessary to the utterance of such an

elaborate opinion; and the statement that immediately follows is in keeping with it, viz: "So-called 'centers,' or 'areas,' or 'fields' of the cerebrum are in no case, however, to be regarded as portions of its nervous substance that can be marked off by fixed lines for the confinement of definite functions within rigid limits. These areas are somewhat different for different brains of the same species; they widen when a heightened energy is demanded of them; their centers are neither mathematical points nor very minute collections of cells. They are not composed of elements which have, each one, a fixed and unchangeable value, and a definite function, as though the number of mental operations assigned to a locality needed to be precisely matched by the separate nerve-fibres and nerve-cells of the locality. Nor are these areas perfectly isolated localities; on the contrary, they obviously over-lap each other in certain cases. According to the true statement of Luciani, 'the single centers in the sensory-motor zone are so completely bound up with, and so to speak, let into one another, that it is not possible to divide them with a clear and definite line, such as is the case when the cortex is incised and removed; so that in destroying a center one necessarily eliminates a portion of the neighboring centers.' Nevertheless, there is no doubt that the cerebral functions connected with the different sensations and motions of the peripheral parts of the body are not all alike exercised by all parts of the cerebrum. They are assigned specifically to those regions which alone have the proper structure and stand on the proper rela-

tions." Prof. Ladd, is considering the motor functions of the brain when he makes the above admission; the psychical functions as indicated by experiment he does not think worthy of more than passing comment. They are not to be revealed and defined by such a method, and [any incidental manifestation or side-light, that intimates a psychic quality is to be viewed with caution and doubt. In this particular, he does not differ much from other metaphysicians, who have looked into the matter of brain function on the physiological side.

For our part we agree with this view in the main, and have stated at different times that we could not accept phenomena alleged to be of a psychical type that proceeded from manipulations of the brain with knife, and galvanism. The wounded, comatose, unnatural condition of the subject preclude the obtaining of definite and isolated mental expressions. If in the experiments on dogs and monkeys the motor or muscular results are so complex, interrelated and indefinite as to set the experimenters against each other in opinion, what is to be expected from experiments that are designed to procure psychical data? No, we insist that the method of Gall and Spurzheim for observing the functions of mind is far better, and eminent physiologists and metaphysicians are beginning to perceive the fact, that the trustworthy data of mind expression have been obtained by that method.

IN TRANSITION.

THIS is a period of intellectual transition, and therefore a period of doubt. Scientific research has been carried to an extent greater than ever the world knew

before, and discoveries have multiplied with astounding rapidity. Old theories that had been for ages regarded as sacred have been forced to the wall, and facts that had been given places of honor in the foundation of this or that department of science by former observers, have been found to be of secondary value, in comparison with later data. The evolution of new truths and principles has been especially active in biology, the naturalist, the physiologist, the physician; each in his sphere, contributing toward our information. Those important questions relating to differences of species, to origin and function, that were once regarded as definitely settled, are renewed. and the most learned confess themselves unable to resolve them. "More light. More light" is the cry, and the new light but furnishes a fresh complication to the puzzle. It is in the surfeit of intelligence that our trouble lies, and until the mind has had time to become expanded and cultivated up to the grade of power that is necessary to a comprehensive grasp of the vast store of data that is accumulating, and can discriminate clearly with respect to the place and bearing of each fact, doubts must perplex us.

But we need not despond as to the result. This period of transition with its thick cloud of uncertainties will be dispelled. The same providence that gave to man the spirit of inquiry that has led to such richness of discovery will give him the capability to understand the meaning of every new fact, and to set it in its proper place. The light will come and doubt will vanish.

A SIDE COMMENT.—If such lawless doings as those of the liquor faction in

San Antonio, Texas, in their mad efforts to break up a meeting held by some of the best people of the town in the interest of temperance, and the evidence given in the Hamilton shooting affair at Jackson, Miss., do not open the eyes of orderly and reflecting citizens more widely to the evils that drink is bringing upon us, we surely misjudge the discernment morally and mentally of the reflecting American. Every brutal outrage of late appears to have a close relation to the rum-business.

BEGINNING AT THE RIGHT END.

WE attended a little entertainment a few weeks ago that was given by the officers of the Literature Department of the Women's Christian Temperance Union, and use this opportunity to express our satisfaction with the statements heard while there, concerning the work of that growing organization. We were told that the National Society enrolls the names of over 150,000 women pledged to do what they can to restrict or suppress the liquor traffic, and as each of these women is more or less influential as a member of some church it was to be expected that they would accomplish something of positive benefit in the sphere of their personal relations, and in time, with increasing numbers and experience, exercise an irresistible influence upon public sentiment at large. We were told that this widespread undertaking was no woman's crusade, such as burst forth with so much energy a few years ago, and after a little sporadic activity expired amid the sneers of the liquor dealers and liquor drinkers, but a deep-toned, solid, purposeful movement, systematically founded upon the urgent

need of the masses for relief from a terrible curse. We were shown some of the weapons that were now used in the contest, and assured that something more substantial than rhetoric and pathos were employed. We were shown a long array of books, papers, tracts and leaflets in which the subject of alcoholic drinks and alcoholic habits was treated scientifically and logically, in which facts were added to argument and the truth declared in clear and forcible language. We were assured that it was the duty of the Literature Department to teach the young of both sexes, through books expressly prepared by competent writers, and also by simple experiments in chemistry, the physiology of the subject, and thus to impress upon the minds of the future men and women of America healthful convictions of the true nature of alcohol.

"Ah," we responded to the earnest woman who gave us the points that have been briefly outlined, "you are beginning at the right end; only get the minds of the children interested in this matter and the way will be clear to a great popular revolution with respect to the drink evil, and that, without a crisis threatening civil and social order."

Yes, we heartily approve this grand organization of the Women's Christian Temperance Union, and expect to see important results proceed from it at no distant day. Calmly and firmly pursuing the even tenor of its chosen way, without giving heed to the strife of parties and factions, it can proffer strong help to whatever is good for the people, and in correcting the drinking habits of the masses most of the elements of social disorder that now erect their Hydra-like

heads and cause serious fears for the safety of the community will be suppressed.

The W. C. T. U. is but an example that should inspire all Christian people to co-operate in measures for promoting

a reform that would prove inevitably of such benefit to the nation at large that could not be measured by line and plummet or expressed in dollars although the figures went high into the millions.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

INTERESTING HEAD.—J. H.—The portrait that you send is interesting from two leading points of view : first, with regard to the

boy's parentage, and second, with regard to what the organization itself indicates. In order to make an intelligent study of it, we should require a history of his family ; i. e. the relations of his immediate parents at least, and what if any were their peculiarities, and stronger leanings. The organization as a whole intimates either disease or precocity. The latter might be dependent upon the former in great part, and if so be an expression of an unfortunate condition. The developments appear to be in some respects decidedly unnatural, but it is possible for his friends to order his life and habits in such a way as to obtain in time a condition of the body and vital organs that will meet the demands of mental activity that such an organization implies. Great care and intelligence would be necessary ; but the result would be worth the effort. If however disease like hydrocephalus or rachitis be at the bottom of the apparent deformity, many years must pass before he could be brought into a normal state. The temperament is so active and excitable that if there be positive disease he should be removed from a place where he may be exposed to influences that tend to irritate and disturb him.

EAR-TRUMPETS AND EARS.—I. S.—If you are short-sighted or long-sighted or have any other defect which compels you to use glasses to see well, and you get from the optician glasses that fit your eyes, they will not injure those organs but rather help to preserve them. So it is with a good ear-trumpet, it will not render you more deaf but be likely to improve your hearing. A specialist in ear-diseases claims as much. He says that the passive motion induced by the use of a well-made ear-trumpet, in the

auditory apparatus, tends to overcome and remedy abnormal conditions that exist there, and which may have been caused by disease. People have gradually quite recovered their hearing while using an ear-trumpet.

TOBACCO A SEDATIVE.—M. E.—Tobacco, like wine, is a mocker. You may think that it has a good effect upon your nerves, because when you are restless and excited it seems to quiet them and helps you to sleep. Its narcotic poisonous effect is thus shown. It benumbs the nerves, in other words is a paralyzant, and though you may experience relief from such benumbing for a time, the reaction is sure to come in an increased nervous irritability. The systemic effect of tobacco contributes to fasten the habit on a person. One may be a very moderate user of cigars, smoke only two a day, yet the power of tobacco will be illustrated in his case if he attempts to stop the habit. Should he not smoke cigars for three or four days he will find himself in a very disturbed, unstrung condition, perhaps unable to attend properly to his business. I have known men who were very moderate smokers try repeatedly to give up the habit, at the cost of so much discomfort of body and mind that they finally concluded to keep on in the old way, solacing themselves with the vain pretence that it would not hurt them much. No. Give it up like a true man and you will be the gainer.

MILLINER OR DRESSMAKER.—E. N. W.—Those who attain to eminence in these branches of woman's work possess as a rule a good development of the organs that are appreciative of the qualities of taste, harmony and beauty. One with large Form, Size, &c., and fair Constructiveness will learn how to cut and fashion articles of dress, and by following patterns do passably good work. But if she have large Ideality she is greatly helped in designing garments and giving them the graceful lines and turns and in adapting the trimmings that heighten effects and gratify customers. A skilful milliner with the natural, ready taste of Ideality can make a cheap bonnet look stylish and well. And so a skilful, tasteful dressmaker will turn plain goods into garments that are becoming. With Ideality superadded the

work of a mechanic that would be plain otherwise becomes artistic.

SELF-IMPROVEMENT.—J. J. S.—Yes, a person can make good progress in study and knowledge by applying himself steadily and systematically. The study of nature, of man, being included in whatever is taken up as the life work, will greatly help in the development and maturing of the mind. Good text-books in every department of science and art are easily obtained, and occasional advice from persons of experience may be had for the asking. To be sure a course at a good school, be it for a year or a term, helps a young man; but solid information and positive ability come mostly from personal application, from seeing and knowing for one's self. A young man who has made his way in great part from fifteen to twenty, and who then goes to school for a year or so, has a great advantage over the merely school-taught student, because his knowledge of the world and stronger mental faculties enable him to comprehend the meaning and application of the principles of book learning.

THE "FOREHEAD FALLACY."—J. P.—You have read, perhaps, the articles in the PHRENOLOGICAL on the attempts of such men as the author of the *Globe* article and should find in them a sufficient answer. Looking at the reasoning and illustrations of the *Globe* article from the point of view of genuine scientific knowledge, it would appear a very much garbled affair. The illustrations defeat their own purpose, being in several cases distortions and misrepresentations, and those that are proffered as examples of a "noble forehead" occurring in low organization and idiocy do not impress the reflective reader as in point. We can not see how, by such resorts and *ad captandum* methods, true Phrenology is to be ignored, except in the opinion of people who do not know what it is. The wretched caricatures of Lafayette and Darwin are enough to condemn the article, as they would be rejected at once by any one conversant with good portraits of them. We half suspect, from some statements of the writer of that article, that he is more intent on trying to injure Phrenology than in

knowing what the views of scientific phrenologists are with regard to the development of the anterior lobes of the brain.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

The Public School System—A Needed Reform.

—Our system of public schools is very expensive, costing not less than one hundred and fifty million dollars per annum. But this expenditure is warranted, provided the people and the state get value received. True, many thousand pupils graduate every year; but do they come forth with practical knowledge, and with sound minds in sound bodies? In general it may be said with truth that the graduates come out of school with only theories and oftentimes with shattered constitutions.

The great struggle in this life is to get bread and butter, and one's education to a large extent naturally lies in preparing him for this work. The laborer needs a knowledge of the rudiments of an English education, coupled with instruction in manual work. The professional man needs a thorough and extended education, an education which he must pay for out of his own money. The duty of the state ought to be performed when she has provided, the essentials the people with facilities that supply of an English education and the first lessons in polytechnics.

The public schools as now conducted furnish in polytechnics no instruction, but courses in the sciences and languages, having a curriculum exceeding even that of the college in which Daniel Webster graduated, excepting in Greek and Latin.

The great object should be to provide elementary education for the masses, if nothing more. Such is not the fact at present. Many thousand of children are excluded from our public schools for want of accommodation. The higher grades have suitable accommodations, but the lower grades have not the privilege. Most pupils can attend school only from six to

fourteen years of age. After fourteen, necessity compels them to work to support themselves and oftentimes their younger brothers and sisters. Hence, suitable accommodations should be provided for the lower grades, and if any of the grades are cut down it should be the higher. The great aim of the state should be to furnish facilities for acquiring an elementary knowledge, and if more can be accomplished let it be in the direction of giving instruction in manual trades and the handling of tools to all those that desire to labor.

It would seem that the state is now imposing as large a tax as the people can well bear. It does not seem feasible to tax more and provide suitable accommodations for all the children. What is the remedy? There is none unless it be to cut off from the top, that the body and roots may become strong and hardy; the fruit will be much better.

The legitimate office of the high school is to fit for the college and the university, and those who attend the high school should pay for tuition. That is to say, the state should not pay for more than an elementary education. Let the preparatory schools do the rest, and their pupils pay for their instruction.

If the public high schools were called academies and seminaries, the people would wake up and proclaim against supporting them by taxation. But they come in as part of the public-school system and the people do not know that they are supporting academies.

Many of the States have passed compulsory laws requiring children to attend schools a certain number of months each year. How pupils are to attend school when there are not sufficient accommodations provided is a question not easily settled. These laws are dead, and must remain so until accommodations are provided for all children.

It is a thankless task for one to suggest reform in our public school system, for the instant he speaks for improvement in this direction he is called an enemy of the free schools, and even denounced as an evilly disposed agitator with intent of overthrowing free schools. This denunciation does not, however, provide for the thousands of

children that are shut out of school for want of accommodations.

If our advancement requires the education of the masses, then we shall cease to progress as rapidly as heretofore, for thousands are practically denied the benefits of schools. If our system of economics would permit the education of every member of society in the public schools, and then in colleges, it might redound to the benefit of our civilization. Education will not make a man worse or destroy his manhood. Neither does an extended education make him better in morals. Our people, as a whole, are better educated than those of England or of France. But within the last twenty years two of our Presidents have been assassinated; out of every ten thousand deaths in England seven have been murders; in France, eight have been murders; in the United States, twenty-one have been murders. The newspapers are filled with crimes and misdemeanors. This goes to show that the morals of the people must be controlled by other forces than the public schools.

The States are supporting a vast system of academies and seminaries by taxation. The cry of "educate up" has run away with us. Let us now "educate down" among the masses and provide them with accommodations for acquiring an elementary education and the use of tools. The hand should be educated as well as the head. A reform is needed.

D. H. PINGREY.

From a Boston Source.—In a notice of the June number of the PHRENOLOGICAL the Boston *Times* comments thus:

"It is generally conceded that to make a journal which is devoted to a specialty attractive to the general public is a difficult task; but the editors and publishers of the PHRENOLOGICAL JOURNAL do not as yet fail in that task."

What he Thinks of it Now.—An old student of the Institute, now a banker in progressive Dakota, writes an interesting letter in which he says:

There is no study that can be more practical, as your subjects are constantly before you, when dealing with your fellowmen, and I can recall to mind very many instances, when it has been a great benefit to me in my business, that of banking. In this wes-

tern country where nearly all are comparatively strangers to each other; having come from many and nearly all of the eastern states, the former history of your man is unknown, and Phrenology, and a scientific knowledge of human nature, lends a great assistance in determining what is best to do with your customer. In making loans of money, a prudent banker must necessarily consider the natural integrity of the man, as well as the security; and in order to judge of his veracity he must have personal acquaintance for many years with business intercourse. When this can not be had, it is very necessary to judge the honor of your man by some other means. Many people, who are naturally good at reading the character of people by intuition, rely much upon their first impressions of a face. But, yet they have little confidence in their opinions, from the fact that they are unable to tell why they form such conclusions. Such persons invariably are greatly assisted by studying Phrenology, and make shrewder and keener business men to deal with the general public.

The benefits which I have derived from Phrenology in my business are numerous, and can only be realized by the many little incidents, where it has been brought into practical use. I have not time to write you more on this subject now, but I fully appreciate the advantage a practical business man can derive from being well-posted on this grand and growing subject of Phrenology.

W. R. GREEN.

PERSONAL.

A YOUNG SWELL.—The king of Spain has, or was about to have, at last accounts, a new uniform and a new sword, richly jewelled. The fact is particularly interesting because the king is only one year old. His Majesty occupies a high rank in the army notwithstanding his youth, and it was a question in the minds of his tailors whether the sleeve of his military coat would be big enough to bear all the insignia which belong to him. It may be added that this promising young gentleman is paid a salary of \$1,500,000, for the prospect of becoming old enough some day to sign the documents his ministers may prepare for his royal pen.

MARK HOPKINS, ex-president of Williams College, one of the most distinguished educators of this century, died at Williamstown, Mass., June 17th last, in his 86th year. Professor A. P. Peabody, of Harvard, designated him as "the first of living educators," and President Garfield once said, "A log cabin with blue benches would be a university with Mark Hopkins as its president."

He was a keen and powerful teacher, whose influence and personality have greatly helped to make Williams College what it is to-day; a writer of simple, luminous English; a speaker, vigorous and eloquent; an ardent lover of truth and a despiser of sham, a man, many-sided, quick of thought and earnest in action, singular in purity, notable for breadth and liberalism.

In the impress he made upon large number of young men educated under his direction, and through his published writings, he leaves to the country a legacy equalled in value and importance by very few Americans of his day.

DONA ISADORA CONIMO, of Chili, is the richest woman in South America.—At her husband's death he gave her absolute control of his immense wealth, and she has proved herself a veritable queen of finance. She has a trained superintendent for each separate department. These she has the tact to pay well, thus binding them to her interests. On one farm of vast extent she has four hundred men. Every house in a village of six thousand or seven thousand is hers, and to the people of this village, and one adjoining, she pays out monthly from \$100,000 to \$120,000. She owns the only large coal mines in South America. From them she receives \$30,000 each month. She has copper and silver smelting works of great value, and a fleet of eight iron steamships.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

Mortifications are often more painful than real calamities.

Great trials seem to be the necessary preparation for great duties.

—Edward Thompson.

I think it best not to dispute where there

is no probability of convincing.—*Whitefield*

Extraordinary afflictions are not always the punishment of extraordinary sins, but sometimes the trials of extraordinary graces.—*Matthew Henry*.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

Good at a pinch—the crab. A joint affair—the stovepipe. As broad as it is long—a square.

—A tinsmith in the country has a sign which reads, "Quart measures of all shapes and sizes sold here."

—Florist (to young man): "Do you notice the blush upon those roses, sir?" Young man (feeling for his pocketbook): "Yes, they are probably blushing at the price."

Sam Johnsing—"Miss Snowball, will yer participate in some moah ice-cream?"

Miss Snowball—"No moah, Mister Johnsing. I likes ice-cream once in a while, but not as a beve'age. Please 'scuse me."



In this department we give short-reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

ENGLISH AS SHE IS TAUGHT.—Genuine Answers to Examination Questions in our Public Schools. Collected by Caroline B. LeRow. Pp. 108. Cassell & Company, New York.

This is a conscientious performance by an experienced school teacher who has had in view rather more than her monthly earnings while pursuing the routine of the school-room. Doubtless the many who have read it assumed, and the many who will yet scan the odd, curious and often fantastic definitions that are mingled with the list of juvenile answers to examination questions, will assume that they are more the figments of a fertile invention than real gleanings from classroom experience. That modern school

methods are responsible for such exhibitions of muddled precocity, and the ambitious memorizing of treatises much beyond the capacity of the average girl and boy, as are herein included, will scarcely be realized, we fear, by the great majority of its readers. Yet such is the case, and we very cordially reiterate what has been said frequently in the columns of this magazine, that the pushing, forcing system so much in vogue in our common schools, to keep up to "grade" and get over a prescribed course of study within a certain limit of time, is a serious mistake and fraught with injury to the minds of our youth. We hope that the book will have a very wide circulation. It is honest. Its humor is irresistible, and at the same time a warning which the reflective will appreciate.

THE ELEMENTS OF MODERN DOMESTIC MEDICINE.—A Plain and Practical Handbook, describing Simple Diseases, Their Causes, Prevention and Safe Home Treatment; the Earliest signs that a physician is needed and the Procedure until the Doctor arrives, in all emergencies. By Henry G. Hanchett, M. D., member of the New York County Medical Society, late physician to the New York Homoeopathic College Dispensary, &c. 12mo, pp. 377. New York: Charles T. Hurlburt.

The clear and precise description given in the above title of this new volume of "home treatment," although employing but few words, leaves little for the reviewer to say, whose space is limited. We are accustomed to find such large claims made in behalf of a publication that is designed to furnish medical information to the public that we can not take up a "Domestic Practice" or "Cyclopædia of Family Medicine" without a strong prejudice against it, but in this new candidate for public attention in a similar line we find statements in the Preface that disarm prejudice and invite our interest. Dr. Hanchett says, for instance, that he "is not a believer in the wisdom of attempts by those uneducated in medicine to cure diseases occurring in themselves, their families or their friends. Such attempts usually result in waste of time, often in waste of money and not infrequently in still worse consequences." A little further on he says: "Advice, instruction, warning, help, can be given by the pen, and to give them simply, directly, plainly, practically and safely is the object of the present book. It does not pretend to cover the subject of medicine; it does not attempt to make doctors of its readers, or to save them the necessity of employing physicians. Recognizing the facts that most diseases tend toward recovery, that there is an inborn tendency in the human family to help itself out of any difficulty, and that the doctor is

often disturbed by calls for which there is no necessity, the author has written what should be known by every one about the causes of disease, what is most likely, without harming the patient, to relieve those troubles which may safely be treated at home, and what are the first signs that things are taking an unfavorable or dangerous turn and require the attendance of a professional medical adviser." Thus we have the motive of the book and a brief outline of its contents. The author makes no show of professional erudition by a thick distribution of technical terms, or going into details of physiology that presume upon the ignorance of the lay reader; he does not occupy pages with the utterance of opinions that the people who are to use his book do not care anything about; but he goes carefully and diligently along, culling from this and that authority, and from personal experience, the facts with regard to symptoms and the treatment indicated. His descriptions are compact and clear, his advice explicit, yet the language used has a vigor and directness that invites confidence.

The hygienic suggestions are to us the most valuable part of the book, and show a much better acquaintance with the principles and practice of hygiene than is possessed by most physicians. In fact the space given to advice on bathing, food, rest, exercise, dress, &c., is rather unusual in a work by a physician of a drug school. A very full index completes the volume, and is a fitting conclusion to a book that will compare most favorably with the works, large and small, of its class now in circulation.

SEXUAL HEALTH.—Companion to "Modern Domestic Medicine." By Henry G. Hanchett, M. D. 12mo, pp. 86. Charles T. Hurlburt, New York.

This chapter on matters of sexuality is a practical discussion of what should be clearly known by men and women, and is a fitting addendum to the larger work. In it the author makes some original statements that are well-worth attention. His references to the influence of heredity, and to temperament as affecting the relation of marriage are sound, and so, too, are his unmistakable imputations of criminality to persons who marry with such diseases as consumption and scrofula gnawing at and corrupting the sources of their vitality. The suggestions to parents with regard to the instruction of children on sexual matters are to be approved. As a whole the pamphlet is judiciously prepared and suitable for the purpose intimated by its title.

PUBLICATIONS RECEIVED.

THE WATSEKA WONDER, a narrative of startling phenomena occurring in the case of Mary L. Vennum. By E. W. Stevens.

MARY REYNOLDS, a case of double consciousness. By Rev. W. S. Plummer, D.D. (a republication). Chicago: Religio-Philosophical Pub. House.

SEVENTH INAUGURAL Address of Clark Bell Esq., as President of the Medico-Legal Society of New York.

This contains a survey of the important work that the Medico-Legal Society has assumed to do, and indicates what it has done in certain lines. We infer from a remark ventured there in that this society, like most of those in our city that have a serious aim in literature or science, is dependent upon a few men for its activity.

A REFORMED ALPHABET OF THE ENGLISH LANGUAGE. By J. P. Grewell, M. D., Brighton, Ia.

THE JOURNAL OF AMERICAN ORTHOEPIY: Ringos, N. J.

There is merit in each of these plans for simplifying the spelling of our English, but we should like to see these gentlemen and all who are aiming at the same worthy object, unite in effort and not waste their strength in so many different systems.

INSANITY AND THE CARE OF THE INSANE, by Clark Bell, Esq. A paper read before the Medico-Legal Society of New York, March 9, 1887. An interesting discussion of a complex subject, in which the author reviews the opinions of learned observers for fifty years or more past, and endeavors to formulate a trustworthy definition of insanity. He points to the improved methods of treating the insane that have come into use latterly as indicating a better understanding of mental derangements.

CONVERSATIONS OR STREET DIALOGUES with Father Elphick. In these jottings and sketches the California octogenarian and hygienist tells of his experience in eating and living, and utters his faith in the simple diet of the vegetarian, and illustrates himself as a proper example of what such food will do for a man. His talk is frequently touched with a quaint humor that makes it decidedly interesting. Father Elphick has become a feature in San Francisco Life. We notice that Mr. Allen Haddock has edited the "Conversations" and Bancroft & Co., published them.

IS THE GOD OF ISRAEL the true God? The Narrative of the Five Books of Moses, Joshua, Judges and the New Testament. By Israel W. Groh.

In this small pamphlet Mr. Groh endeavors to cover a very broad field of theological inquiry, and we think rather belies his excellent Hebrew name by his manner of dealing with Bible statement. Published by the Truth Seeker Company, New York.

CANON WILBERFORCE'S RECEPTION. The National Temperance Society has published in pamphlet form a report of the address of Canon Basil Wilberforce at the reception recently tendered him by the National Temperance Society. The pamphlet also contains the addresses of Rev. Dr. T. L. Cuyler and General Clinton B. Fisk on that occasion. It is a strong total abstinence document and should have a wide circulation. Address J. A. Stearns, Pub. Agent, New York.

PACKARD'S BUSINESS COLLEGE, so long on Broadway, has been removed to the corner of Fourth Avenue and Twenty-third street, over the way from the Natural Academy of Design, and the Y. M. C. A. building. Here new and excellent appointments will make Prof. Packard's institution more useful and valuable than ever, as a training school for young men and young women who would enter life prepared for its practical work. The fall session will open on the 5th of September.

TRADE "SECRETS," AND PRIVATE RECIPES.

This, says the editor in the title, is a collection of recipes, processes and formulæ that have been offered for sale at prices varying from 25 cents to \$500. With notes corrections, additions and special hints for improvements. It is not a clap-trap book, but brings into their true light many things that are of the clap-trap, deceptive character, and contains in a small space much information of value to useful, handy people. As John Phin, Ph. D., is the editor, the book is given a scientific complexion. Price 60 cts. Industrial Publishing Co., New York

CURRENT EXCHANGES.

The Publishers Bulletin: Fresh and direct in opinion. Monthly. New York.

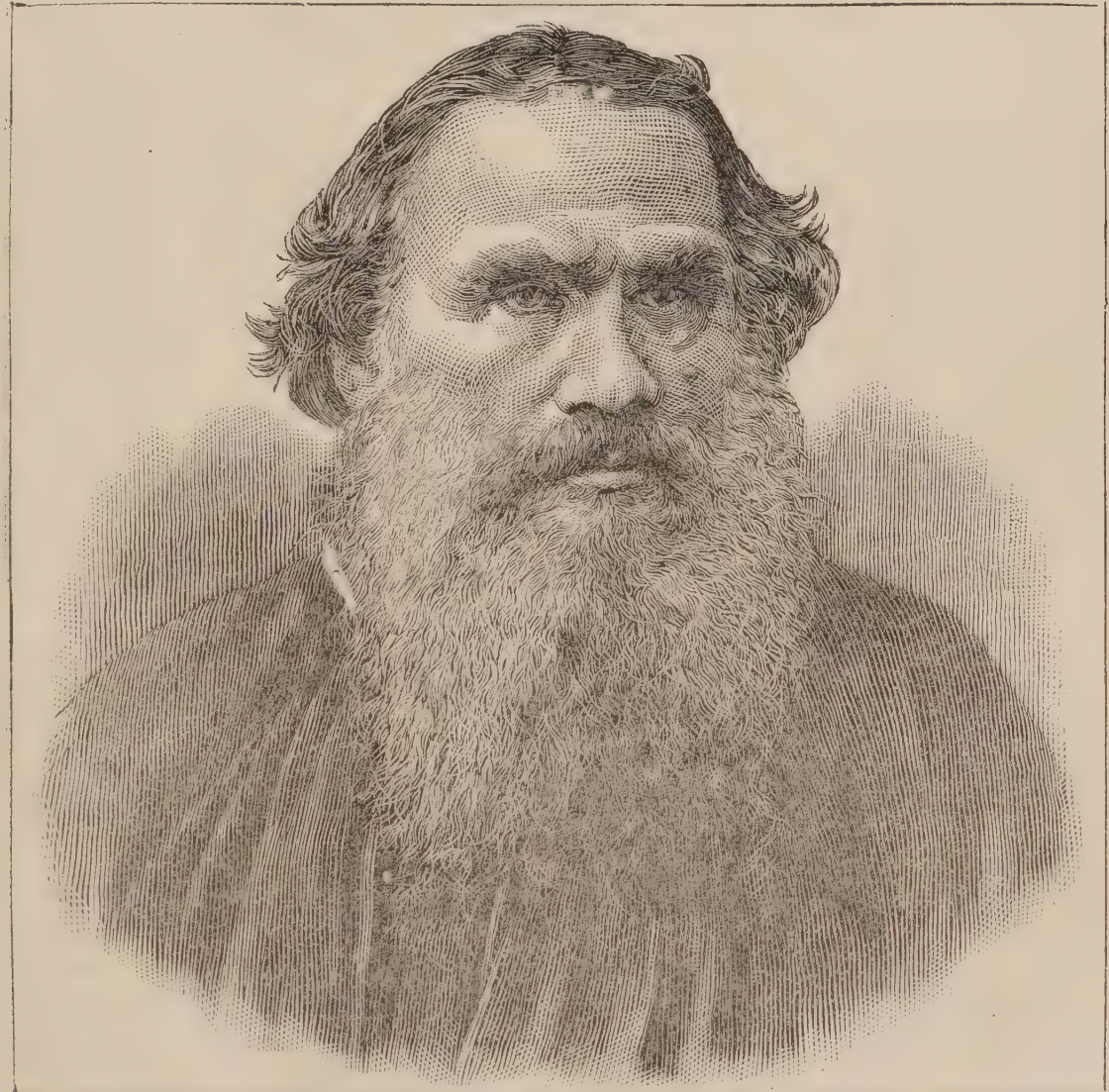
- The Hahnemannian Monthly*, rigid yet progressive in its faith. Philadelphia.
- Buds and Blossoms*: Evangelical and reformatory. J. F. Avery, Halifax, N. S.
- The American Medical Journal*: E. Younkin, M. D. Editor. Independent and liberal. St. Louis, Mo.
- American Book-maker*: Enterprising and excellent in typography. Monthly. New York.
- Southern Cultivator and Dixie Farmer*: A voluminous gazette of agricultural matters, Atlanta, Ga.
- The Voice*, monthly, relates to the physiology and culture of the vocal organs, and its columns are usually charged with practical information directly in keeping with its professed line. E. S. Werner. New York.
- Harper's*, for July, opens with an elaborate description of the method pursued in the making of books, from the composing room to the bindery. Then there are, *Cadet Life at West Point*, *A Central Sudan Town*, *Here and There in the South*, all these articles being illustrated. A pleasant variety is afforded by such sketches as *Bayou L'Combe*, *Mexican notes* and *Aunt Rardy*. Harper & Brothers, New York.
- Browne's Phonographic Monthly*, shows enterprise and a disposition to favor what of substantial progress shorthand writing is making. The notes and correspondence contain suggestive and valuable points often from our best-known reporters. The tendency toward an improved system in which vowel sounds will be incorporated with the verbal outlines we heartily approve. New York.
- The Popular Science Monthly*, for July, discusses *The Economic Disturbance since 1883*, *Variation in Human Stature*, *The Panama Canal*, *Among the Thousand Islands*, *Human Brain Weights*, *Earthquakes*, *Mental Difference of Men and Women*, *Isaac Lea with a portrait*, etc., etc. The article on *Human Brain Weights* contains a variety of data that possess some interest but lead to no conclusion. D. Appleton & Company, New York.
- The July Century*, opens in a patriotic way with a capital portrait of John Adams. The illustrated articles are *Among the Wild Flowers*, *Todhunter's Heart*, *Animal Locomotion in the Muybridge Photographs*, *Abraham Lincoln*, *History continued*, *The Potential Eulogy of Ford*, *The Sportsman's Music*, *The Struggle for Atlanta*, *Memoranda in the Civil War*, in "Topics of the Mine," and "Open Letters" we have some spirited talk. Century Company, New York.
- The Cincinnati Medical News*: J. A. Thacker, M. D. Editor.
- American Inventor*: Industrial and artistic matters. Cincinnati, O.
- Massachusetts Ploughman*, clings tenaciously to the old sod of New England. Boston.
- Laws of Life*: literary representative of the Dansville, N. Y. Sanitarium.
- American Bookseller*: Illustrated Annual Bulletin of books for summer reading. New York.
- The Alpha*, deserves support from those who love a pure domestic life. Washington, D. C.
- The Medico-Legal Journal* late number, is of special interest, with considerations of the *Druse Case*, *Classifications of mental diseases*, *Penal aspects of suicide*, *Reports of learned societies*, etc. New York.
- The Homiletic Review*, draws from prominent sermonizers, seven or eight of its leading features in the July issue, and is as well-filled as usual with items of suggestion to clergymen who are disposed to be more scholastic than original. Funk & Wagnalls. New York.
- Dress*: A new candidate for consideration, and earnest for reform in the costume of women. We suppose that the classic lady on the title page does not quite represent the ideal of Mrs. Miller in the matter of woman's dress, but rather the ideal form to which she would have dress adapted. As the aim is to give women freedom of movement as well as graceful attire, we commend the enterprise so vigorously begun. New York.
- Lippincott's Monthly*, for July, has a complete novel entitled "At Anchor," besides nine other titles relating to current and popular subjects. For instance: *The Mistress of the White House*, *The Unpopular Kitchen*, *West Point*, *the Army and Militia*; *Our Monthly Gossip* covers some plain talking from writers in the state of periodical literature, from the point of views of contributor and editor. Philadelphia.
- The Pulpit Treasury* for July, has a fine portrait of the venerable Dr. Morgan, rector of St. Thomas's Church, New York, and also a sermon of his. St. Thomas's is famed for its fine interior, which is perhaps the best specimen of gothic architecture in the United States, and also for its fine music, other features of the number are the sermons by the Rev. Drs. Tinker and Stevens, and *Leading Thoughts* by Hall, Eaton and Brown. E. B. Treat, New York.

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COUNT LYOF N. TOLSTOI, THE RUSSIAN WRITER.

ONE of the greatest living novelists and but a short acquaintance with his is the Russian Count, Tolstoi. It is writings was necessary to impress us of not until within a few years that the the western world that the nobleman American reading public heard of him, of lowly life and self-sacrificing habits

was a prince in literature. His head and face have the stamp of culture and growth intellectually and morally that brings into close approximation the Turanian, the Teuton and Slav, and renders it difficult for the ethnologist to distinguish positively between them. We note the relations of race in this portrait more in the features below the eyes than in the well-defined brows and temples of the forehead.

Evidently Count Tolstoi possesses the force and impulse of the Russian temperament; there is a searching intensity in the expression of mouth and eyes, a significant look of settled conviction, a gleam even of fanaticism. As we consider it we may imagine him to ask, "Can you have any doubt with respect to my sincerity? Could you by any possibility impugn my motives?" The intellect shows clearness and breadth of observation, and much capacity for reflection. He is not a talker in the usual meaning of that term, but rather disposed to quiet and reserved contemplation. We should take him, from the portrait, to be a man of few words, speaking in a compact, sententious manner. He should write far better than he can speak, for writing gives him time to marshal the words fitting idea and suggestion, and permits the inter-play of fancy and taste. That broad and full temple shows the man of many devices, the constructive element is large, and the æsthetic elements are powerful. He is a poet in more ways than one; deeply susceptible to influences that awaken a lively, practical interest in the ideal and beautiful.

His is a practical nature withal, an energetic, industrious, workful disposition that should be indicated sharply; he would take hold and do with his own hands what men allied to him in social station would, as a class, order others to do. He has independence, and yet a dislike to be thought at all arrogant or assuming, for his sympathies are influential and his conduct frank and concil-

iatory. He has ambition and believes in accomplishment, and would be likely to resent sternly the attempt of others to cramp and restrain his efforts in any chosen direction.

The facts of Lyof N. Tolstoi's life as briefly told are that he was born at Yusnaya Polyana, a village near Tula, in the government of Tula, on the 28th of August 1828. He studied oriental languages, and the law at the University of Kazan; then entered the army, served in the Crimean war, and resigned at its close. He then gave himself up to society and literature in St. Petersburg; and finally left the capital for his family estates, where he has since lived the life of lowly usefulness which he believes to be the true Christian life. The man whose career was in camps, in courts, and in salons even now makes shoes for peasants, and humbly seeks to instruct them and guide them by the little tales he writes for them in the intervals of his great work of newly translating the gospels. He married the daughter of a German physician of Moscow, and his wife and children share his toils and ideals. Not much more is known of the retirement of this really great man; but it is said that an American traveller who lately passed a day with him found him steadfast in the conviction that withdrew him from society—the conviction that Jesus Christ came into the world to teach men how to live in it, and that he meant literally what he said when he forbade us luxury, war, litigation, unchastity, and hypocrisy.

The writing of such stories as *Peace and War*, *Anna Karenina*, *My Religion*, *Childhood*, *Boyhood and Youth*, *Scenes at the Siege of Sebastopol*, *The Cossacks*, *The Death of Ivan Illitch*, *Katia*, and *Polikouchka* show his exceptional ability to depict the inner life of men, and the elevation that pervades them all, although the plot and scene may be at times commonplace enough, is striking. Mr. Howells in a brief review of Tolstoi's work says:

"He teaches such of us as will hear him that the Right is the sum of all men's poor little personal effort to do right, and that the success of this effort means daily, hourly self-renunciation, self-abasement, the sinking of one's pride in absolute squalor before duty. This is not pleasant; the heroic ideal of righteousness is more picturesque, more attractive: but is this not the truth? Let any one try, and see! I can not think of any service which imaginative literature has done the race so great as that which Tolstoi has done in his conception of *Karenima* at that crucial moment when the cruelly outraged man sees that he can not be good with dignity. This leaves all tricks of fancy, all effects of art, immeasurably behind. In fact, Tolstoi brings us back in his fiction, as in his life, to the Christ ideal. 'Except ye become as little children'—that is what he says in every part of his work; and this work, so incomparably good æsthetically, to my thinking, is still greater ethically. You will not find its lessons put at you, any more than you will those of life. No little traps are sprung for your surprise; no calcium-light is thrown upon this climax or that; no virtue or vice is posed for you;

but if you have ears to hear or eyes to see, listen and look, and you will have the sense of inexhaustible significance.

"I happened to begin with *The Cossacks*—the epic of nature, and of a young man's sorrowful, wandering desire to get into harmony with the divine scheme of beneficence; then I read *Anna Karenina*—that most tragical history of loss and ruin to brilliancy and loveliness, out of which the good can alone save itself; then I came to *Peace and War*—that great assertion of the sufficiency of common men in all crises, and the insufficiency of heroes; I found some chapters of the *Scenes of the Siege of Sebastopol*, and I read them with a yet keener sense of this truth; *Childhood, Boyhood and Youth* made me acquainted for the first time in literature with the real heart of the young of our species; *The Death of Ivan Illitch* expressed the horror and the stress of mortality, with its final bliss, and made it a part of nature as I never had realized it before; *Poli-kouchka*, slight, broken, almost uncompleted, was perfect and powerful and infinite in its scope of mercy and sympathy."

"KNOW THYSELF."

FEW of us are so happily constituted that we are

"Creatures without reproach or blot,
Who do God's will and know it not,"

for most of us are weak; earth-children, who lean upon others; taxing the forbearance of all around us; fretful, crying children, who take the best life of others and return nothing; or what is worse, we are black spots upon the sunshine, depraved, sensual, drunken, devilish. What shall we do, and how shall we square our lives is the great question that concerns us. We must have a scheme, a system, an aim in life, or we have no security that we shall not make it an entire wreck. We must start with

a something that will be to us what ballast is to the ship, and the magnet to the pilot, and this must be faith in a supreme, beneficent and benevolent power resulting in law; faith in the supremacy of the soul, and faith in ourselves, or, in other words, a sense of duty growing out of these relations.

There is something which man is to do himself. He is not the victim of arbitrary law, nor the victim of an overwhelming fate. Within himself is the law, and it is his place to study it out and learn the end and aim of life. There is no such thing as misfortune—the struggle of a good man against envy, hatred and malice, persecution and

death, which the ancients declared was a sight pleasing to the gods, deserves a nobler name than misfortune, which implies only the mishaps pertaining to worldly relations of success or defeat, and which are subject to worldly wisdom.

If the light that is in you be darkness, how great is that darkness. In the soul of every man is placed the vice-regent of God, the conscience, which is the interpreter of law; the perpetual voice uttered within us, that says, *do right*. This is the voice that stays the hand on the verge of crime; the voice that whispers through the darkness, and peoples it with images of dread wherever man is concocting measures destructive to his own peace or the good of others. This is the light within the soul penetrating to all its recesses; showing up its dark spots, and indicating the possibility that it may become at some time a scorpion whip to punish, a burning flame of retribution, bringing slowly but surely its penalty for evil doing. This conscience is the light of the soul, and our great Teacher has implied that this light may be extinguished, this blessed ray coming down from the Father of light may sink down into darkness, as the Shekinah that illumined the ancient temple of Jerusalem, shining over the holy of holies, went out at the desecrating touch, and a low wail, a melancholy cry, "Let us depart," was the last sound that preceded destruction.

Our life, each one, is a little kingdom, the administration of which is left to its owner. If he neglect it, evil will spring up in every department, sensuality and passion will prevail, and license and corruption bring about a state of moral anarchy that will end in total eclipse of, or subversion of all good. In this sense we are our own keepers, and if we fail to avail ourselves of such helps and conditions as are a part of our moral safety, if we rush on blindly with a headlong disregard to consequences, we

have no right to indulge in maudlin complaints, and declare the world is against us, when it is only we who have been against ourselves.

We all have burdens to bear, but if we are accounted worthy to suffer, our trials will be proportioned to our strength; a life of all sunshine and prosperity is intrinsically a mean life, most likely compounded of entire selfishness; but we have most of us a habit of leaning upon each other, and thus compelling others, not only to bear their own burdens, but ours also. We spread out before them our aches and pains, our trials and disappointments, our regrets, lost hopes, petty cares, and weaknesses, just as if all these were not the common lot, and thus we weaken ourselves and distress others, and the common stock of magnanimity is impoverished. We challenge sympathy on trifles; we defraud our friends out of most sacred sensibilities by this imbecility. We must, if we would be true to what is best in our manhood, learn to stand alone—this everlasting cry for sympathy, and appreciation is the ultimate of selfishness and infirmity, to say nothing of vanity. When we stand thus alone in the completeness of our moral sense, and the fulness of our faith in the divine spiritual, we begin to live, and are worthy of confidence, and can go among our fellows imparting a glow and kingliness, sunshine in a shady spot, clearness, hopefulness, all the armory of the spiritual life, and this does not require great gifts, but it does require manliness in the use of them.

We Americans, as a people, are vain and ostentatious—this is the abuse of our real idealism; we like completeness in everything. We dress better, build better, row and swim, and eat better than other peoples, and in all this we are in danger of losing the spiritual side of our being. We are proud of ourselves as a handsome people, proud of our country, so vast, so majestic: proud of our institutions, the best in the world-

holding out unlimited promises, affording infinite possibilities to the race ; but it behooves us on these very grounds to be the more circumspect, and not content ourselves with any superficial good which we may have attained, lest the national light become darkness. Our system of education, our habits of thought are such that our old men are young, and our young men old. Let us beware lest by a neglect of moral training we become unworthy of our beautiful heritage, and incur the woe of the Persian sage upon that nation, "in which the young have the vices of old age, and the old retain the follies of youth."

Some will not incur the responsibilities of marriage and paternity from this cause alone, and they impoverish their own souls by this means ; others will not commit themselves to measures of public interest, for fear of being called upon to perform some onerous duty ; and in many ways responsibilities are shirked which it is better to meet manfully. In accepting anything outside of ourselves we run the hazard of encountering disappointment, what then ? shall we live like a snail in its shell lest we find ourselves eating bitter herbs of grace ? Shall we refuse to do good to our kind lest we be met with obloquy ? shall we

quench the living lamp of the soul, because some have mistaken the way ? shall we fear to entertain angels because devil's have sometimes appeared like angels of light ? Better, ten thousand times better, seize upon some beneficent good even at the risk of all suffering. than live an irresponsible, selfish life, with only self for its centre. The old myth of Prometheus, who snatched a coal from the gods by which he animated his clay man, and for this godlike act was condemned to ages of suffering, has its counterpart in every heart that will go out of self into benign endeavors

Our lot in this world is a mingled web of joy and sorrow, but if we square it by the laws of immutable truth and justice, which the conscience within us is forever calling upon us to do, we shall at least find peace, and safety ; but if we would find joy as well as peace we must make our faith a living vital faith, covetous of good works, but covetous also of heavenly manifestations ; so full of internal light, so glowing with the Shekinah of the holy of holies that we shall feel and know that heaven is within us, and even grief and trial, and the cruelty or sordidness of others will not disturb our perfect faith that to live, to be, is of itself a blessedness.

ELIZABETH OAKES SMITH.

THE NATIVES OF NORTH AMERICA.—PART 2.

RELIGION OF THE INDIANS.

THE Indians are a very religious people. The belief in the supernatural is universal among them. The medicine men are their prophets and priests. They profess to hold communion with spirits, and to possess prophetic gifts and magical powers, and the people believe that they do. They rely chiefly upon magic as a remedy for disease, though they sometimes use roots, herbs, and other means. A belief in a Great Spirit or *Supreme Mystery*, and numerous inferior spirits, is general, if not uni-

versa' among the Indians. Some tribes believe in two Great Spirits, good and bad, while others believe that there is but one Great Spirit, who is sometimes in a benevolent mood and at other times angry. The first, credit all the good things they receive to the good Great Spirit, and the evils which come upon them are charged to the account of the evil Great Spirit. The last, when misfortune comes to them, accept it as proof that the Great Spirit is angry, and when they are successful, prosperous and

happy, they are sure that the [Great Spirit is in a benevolent mood. They all believe in a future life, not only for men but for animals. In a sense the Indians are all spiritualists. The happy hunting-grounds are not very far away, and spirits of the dead are believed to be able to return and influence affairs in this world. Red Cloud said to the writer: "I can not see him, but I know that my friend Spotted Tail is with me often, and that he

bad go to a country which corresponds to their moral condition." The writer has interviewed representative Indians of a majority of the tribes and found that nearly all of them hold substantially the belief expressed by Red Cloud. Some tribes believe that bad Indians can reform after death and be permitted to leave the bad lands, and thereafter live in the happy hunting-grounds, and some, among whom are the Apaches, believe in metempsychosis.

"The earth is my mother, and I will repose upon her bosom," said Tecumseh, when General Harrison offered him a chair to sit upon. In this sentence Tecumseh expressed the belief of all Indians that the race sprang from the earth. The traditions of different tribes are at variance on minor points as to their genesis, however. The Pimas say that the Great Spirit made the first man and woman, by mixing clay with sweat from his body, and put life into them by blowing his breath upon them. Many other tribes have substantially the same legend. The traditions of a large majority of the tribes teach that the animals sprang from the earth, and men from animals. The Chippewas believe that they sprang from



ESHTAHUMLEAH—SIOUX CHIEF.

is as deeply interested in the welfare of our people as before he went to the spirit world, and that he is able to influence me and other men in their behalf." He said, "The Dakotas (Sioux) believe that very good Indians when they die go to a very beautiful country, where all their wants are supplied and where they are very happy. Very bad Indians go to the bad lands of the spirit world, where they suffer all sorts of privations, and those who are not very good or very

a dog, the Nes Perces and some other tribes of the Pacific Coast, the Dakotas and many other Indians of the interior, and the leading tribes of the East, are taught by their sacred traditions that the different tribes came from different animals, birds and reptiles, as the bear, the wolf, the elk, the eagle, the tortoise, &c., &c.

Nearly all Indians worship a Great Spirit. Those who believe in two Great Spirits worship the bad one, thinking it

necessary to *placate* him and secure his good will ; while the good Great Spirit will not harm them, but do them all the good he can without asking. The worship of these people consists in prayers, fasts, feasts, penances, burnt-offerings, &c., &c. Religious worship is termed

Beds in making medicine, and they firmly believe that Kamo-Kumchucks (the Great Spirit) heard their prayers and gave them the victory over their foes. Smoholler, a great medicine Chief or prophet of the Walla-Wallas, predicts that the Great Spirit will avenge the



AN INDIAN WAR DANCE.

“medicine-making,” and no enterprise, whether of war or peace, is undertaken until those who are to engage in it have made medicine for a longer or shorter period. Captain Jack told Colonel Meacham that his people spent the entire night before the battle of the Lava

wrongs of the Indians by making the ground open and swallow up all the whites, after which all dead Indians will be resurrected, and the race will thereafter occupy the Continent undisturbed. He has quite a large following, Chief Moses and his people being among his

disciples. The Klammaths, Modocs and kindred tribes cremate their dead. This custom is based on a tradition that a long time ago a great medicine man appeared among their people who could cure all diseases, and even raise the dead by a touch of his hand or by his breath. When his mission was finished he called all the Indians to witness his departure for the upper world. He stood upon a rock, which is still pointed out and held



A PAWNEE CHIEF.

sacred, and in a loud voice he told the people that he was about to leave them, and he desired that they should love each other and live in harmony with all other people. As he spake smoke began to issue from beneath the rock on which he stood, and as he closed his speech a flame of fire burst up and enveloped his form, when, to the astonishment of all, the flame of fire arose into the air carrying him with it. After rising to a great height he took a northerly direction and finally disappeared. These Indians be-

lieve that the aurora borealis is a reflection from the sacred fire of Isees, their great medicine man, and it is to them proof that he has not forgotten them.

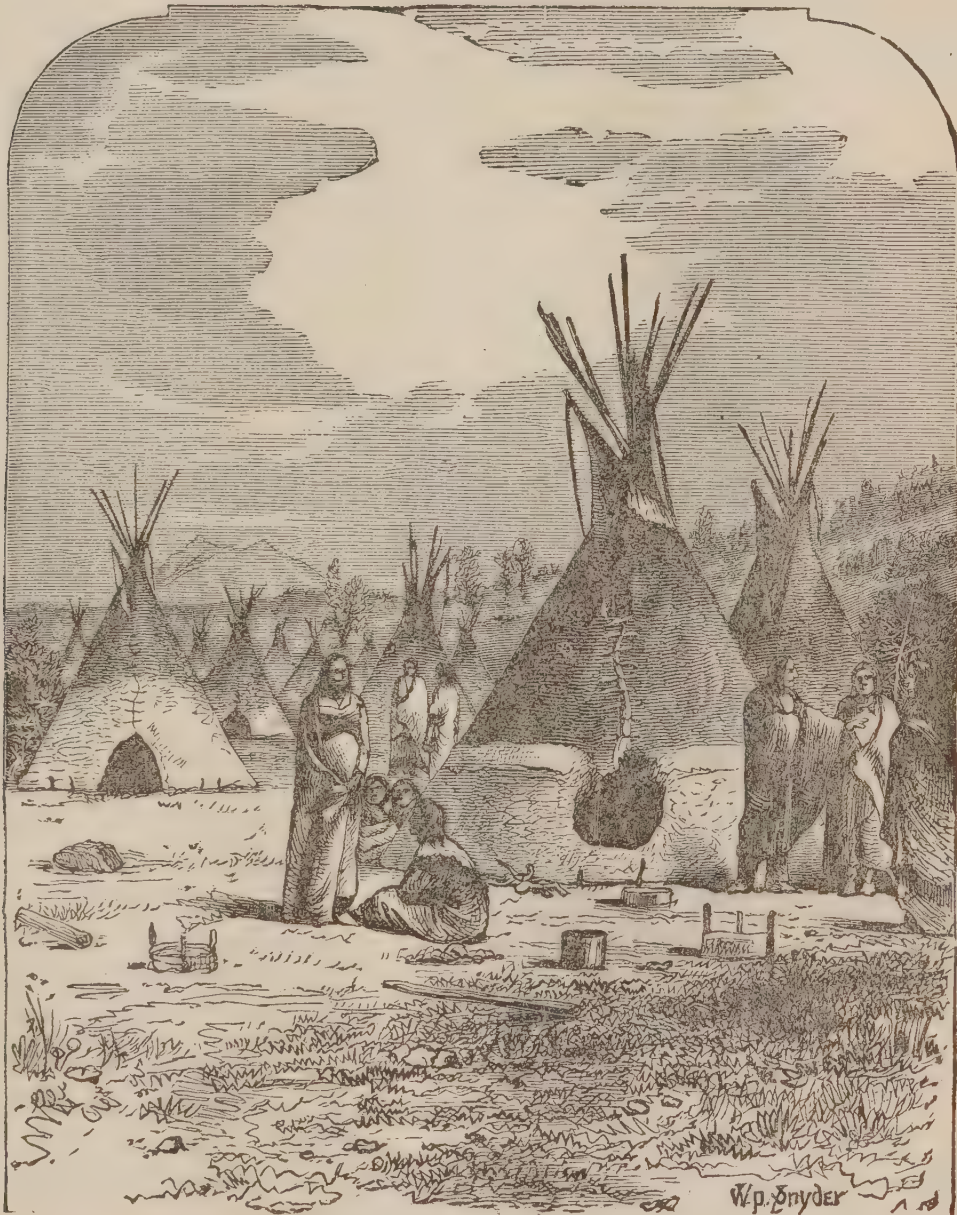
GOVERNMENTAL POLITY.

The political system of the American Indians is a compound of Democracy and Monarchy. The Chiefs are, as a rule, hereditary sovereigns, but their functions are advisory and executive only. They preside over all public councils, but the will of the council is the supreme law. Ordinarily councils are composed of the head men of the various bands or clans of the tribe, but when a subject of great importance is to be discussed and determined, a council of the whole tribe is called, and the question, after full discussion, is determined by vote, and from the decision of the majority there is no appeal. The Chief can call the people together to reconsider their action, however. A war chief is not necessarily of royal blood. He is selected from among the braves on account of his recognized fitness for the position, and may be reduced to the ranks at any time by a majority vote. The hereditary or head chief often takes command of the warriors, but his past record as a wise and brave warrior can alone give him the right to do so. During the first two years of the Sioux War of 1864-'7, Chief Red Cloud did not take up arms. He was in full accord with his people, but he hoped to secure a treaty with the United States which

would be honorable and just. He met the Government Commissioners and laid the grievances of his people before them, and told them on what terms a lasting peace could be had. In council at Fort Larimie, held early in the year 1867, at the close of a long talk, the Chief said: "I am now fully convinced that you do not intend to deal justly by my people, and from this day I shall appeal for justice to the Great Spirit, and rely upon him and my trusty rifle." He took command of his braves and entered upon a

vigorous campaign. Within a year the Government was very willing to make peace with him, and a treaty was signed at Fort Larimie early in 1868 by General Sherman and Chief Red Cloud. This treaty gave Red Cloud substantially what he had demanded in former councils. This treaty bound both parties to perpetual peace thereafter.

is divided by certain natural boundaries, rivers, mountains, &c. Various tribes occupy their portion of the country in common. They strenuously object to adopting the white man's mode of dividing the land in severalty. The Indians are by nature Communists. They hold it a religious duty to share their food, clothing and whatever they may



AN INDIAN VILLAGE.

The Sitting Bull war was caused by a violation of this treaty by the United States, but Red Cloud refused to join Sitting Bull, saying, "I will keep the treaty whether the Government does so or not." All Indians are governed by traditional laws in regard to property, and these traditions are substantially the same among all the tribes. The country

possess with needy members of the tribe, and even with strangers who may be thrown upon their hospitality in a condition of want. On the death of an Indian brave his property is divided among the people of the tribe. The members of the tribe then make presents to the family of the deceased, in accordance with their several ability.

Women are, as a rule, held to be inferior to men and are therefore required to do the most menial labor. Some tribes admit women to their councils, but this is the exception. The Navajoe women are consulted by the men on all questions of importance and their views have great weight. The Cheyennes invite their wisest women to join in the councils of the tribe. Winemah was recognized as a war chief, and was admitted to the councils of her people, the Modocs. She

take a wife from another tribe. He is also forbidden to marry a woman of his own gens or clan. Exceptions are known, but they have been rare. A young man is expected to make presents to the family of his bride, and the more generous he is in this regard the higher he stands in the esteem of the girl and her people. Usually the presents he receives after the wedding from his wife's people fully compensate for all he gave them. This custom has given rise to the

impression that Indian parents sell their daughters. Polygamy is practised by many tribes, but not by all. On the death of an Omaha brave his eldest brother must marry his widow and adopt his children, if he had wife and children. In case the deceased has no brother, then his nearest male relative must take the widow and children into his family, no matter how many wives and children he may already have. This law is in force in other tribes with which the writer is acquainted. Sexual vice is rare among Indians. The women are modest and virtuous, and the men respectful and chivalrous. Seduction and adultery are rare among them until they are demoralized by intercourse with the whites. The laws of some tribes punish such crimes with death. Indians are ardent in their friendships and intense in their



A SHOSHONE, OR, CREEK INDIAN.

won this distinction and dignity by her wisdom and courage. On one occasion she raised a volunteer company and led them to victory, in a battle with a marauding band of Snake River Indians, who had captured some horses belonging to the Modocs, including her favorite pony.

SOCIAL CUSTOMS.

The Indians have very complex laws of marriage, based on traditions which must be respected. A brave must not

hatreds. They enjoy visiting and entertaining friends, and make common cause with each other against foes. They have many festivals, and dancing and ball-playing are popular amusements with the youth. Ethnologically considered the American Indian is something of an anomaly. He is in physical development not only, but in mental capacity, the equal of any race on the globe, yet he has made no progress in the development of science or literature,

and manifests a strong aversion to the abandonment of his crude mode of life and the adoption of the more complex civilization of the white man. He is the typical conservative of the human race. He is content with his state, and even proud of it. Red Jacket spoke for his race when he said, "The Great Spirit made us Indians. If he had wanted us to be white men he would have made us white men. He gave us a religion suited to us, and to the white men a religion which suits him. I think Jesus Christ was a good man, and the white men deserve to be sent to hell for killing him. But the Indians had no part in that matter. Christ was not sent to them, and we have no use for the white man's religion. Our religion is good enough for us. The Great Spirit taught the white man to talk on paper because he knew he could not remember things. The Indian never forgets. He don't need books. He keeps everything in his heart."

Oratory and diplomacy are cultivated

by the Indians to a degree of perfection rarely attained by civilized politicians. Speeches of King Philip, Logan, Tame-nund, Tecumseh, Joseph, Mocketavetah, Osceola, Black Hawk, Red Cloud and other renowned Indian orators are preserved among the gems of American classics, and these red men rank among the first in the diplomatic history of the New World. The present population of the Indian tribes of the United States is 265,000, not counting the Indians of Alaska, whose numbers are unknown. These reside on reservations, chiefly in the West, in charge of 65 United States Indian Agents. A few tribes are self-supporting, having become versed in the arts of agriculture, stock-raising, &c., but the majority subsist mainly upon rations and annuities distributed among them annually by the Government of the United States in payment for lands they have surrendered from time to time.

T. A. BLAND,

Cor. Secretary National Indian Defense Association.

A NOBLE ENGLISH HOME—HATFIELD HOUSE.

ON the 22d of July, 1661, Mr. Samuel Pepys, direct from London, rode to Hatfield, where he arrived "before twelve o'clock," which was very good riding for that portly, worthy gentleman. There he was fortunate enough to meet with "Mr. Looker, my lord's gardener," who courteously showed him the house, the chapel "with brave pictures," and also the gardens, which especially pleased the curious visitor, who made the note in his diary that he "never saw such in all his life; nor so good flowers, nor so great gooseberries, as big as nutmegs." Several seasons later, this time it was in August, 1667, good Mr. Pepys and his excellent wife, with "our coach and four," paid another visit to the old market-town. They stopped at "the inn next my Lord Salisbury's house," where they dined and "were mighty merry," after which they walked out into the

park and the vineyard, which he styled "a place of great delight."

Two hundred years denotes age to us, but Hatfield is nearly the same to-day as it was in those far-away days of the seventeenth century, when the gossippy Pepys visited its halls and walked under the grand old trees. The gardens are still as beautiful, the noble palace as stately, as gracious as ever; still "mighty fine" to look at. There still stands the tower from the window of which, according to tradition, the Princess Elizabeth envied the lot of the humble milkmaid, and in the park still towers the great oak under which she received the news of her accession to the throne. In fact, it is said that no home in the kingdom, erected at so early a date, remains so entire as Hatfield; none other is so little changed, all the additions and re-erections having been made accordant

with the original style. In spite of the passage of years, in spite of the depredations of a great fire, much of the original house, all of its foundations, and many a real and enduring relic which Pepys saw, remain unaltered to-day.

As the ancestral home of the accomplished Salisbury, present Premier of the British Empire, Hatfield House naturally possesses interest not only to Englishmen, but to those claiming English descent, and when to this living interest is added the historic vista of centuries in the transition from the hill fortress of the Norman period to the picturesque mansion of the Elizabethan age, much may be expected from the olden story of such an abode and its eventful associations, as well as from the instant interest which attaches to the present distinguished owner.

“Castle of the ancient time,
Glory, splendor, all are thine;
And, as in a flowing rhyme,
All thy beauties richly shine.”

Hatfield, the home of the Salisburys from the time that their ancestor, Robert Cecil, second son of the illustrious Lord Burleigh, exchanged Theobalds with the arbitrary, pedantic James I., though called a “House,” is really a castle or a palace, and a splendid one at that. It covers with its courts and outbuildings somewhere between three and four acres of ground, and its stately towers rising above the noble trees can be seen miles and miles away. It is built of brick, in the form of a half H, after the most approved style of Elizabethan architecture. In the center is a portico of nine arches, and a lofty tower, on the front of which is the date 1611; and each of the two wings has two turrets with cupola roofs.

The story of Hatfield House goes back eight hundred years or more. It has seen fetes and revels galore, and welcomed proprietors more puissant even than the noble Cecils. The manor of Hetfelle, as it is called in Domesday, was granted by King Edgar to the Abbey of

St. Ethelred, at Ely; and upon the erection of that abbey into a Bishopric, in the reign of Henry I., 1108, it is supposed to have acquired the designation of Bishop's Hatfield. One of the warlike and luxurious bishops built a feudal structure here in the twelfth century, and more than one English king was entertained within its walls. William of Hatfield, second son of Edward III., was born here. Bluff King Hal took possession of it in 1628, and after that monarch the castle was successively the residence of Edward VI. immediately before his accession, of Queen Elizabeth during the reign of her sister Mary, and of James I. Robert, the first earl of Salisbury, built the present mansion, 1608-1611, and the next year, dying, left it to his son William, the second earl. The present bearer of the family honors is the eighth earl of the line and the third marquis, having inherited the title upon the death of his father in 1868.

We saw Hatfield on a beautiful summer day, the reality of Longfellow's “perfect day,” a day

“On which shall no man work, but play.” Perhaps no one has thought of it, but the old castles and manor houses need summer sunshine for “beauty's heightening;” they are too stern and grim at other times. We saw this one in June, in the atmosphere of umbrageous oaks and green fields, and the place could never have looked lovelier. The dull, red bricks and fine gardens were rich with warmth and color imparted by the sunlight. The eighteen miles' ride from London had been passed in some two hours and a half, and we stood at last under the shadow of the great tower which has looked down on many a grand pageant and will probably look down on many more. The Marquis had not returned from his London house in Arlington Street, and so the palace was open to visitors, at which, as Pepys would have said, we were mightily pleased.

The brick entrance to the park and

grounds are of a date earlier than the reign of Henry VIII.; and the Tudor carvings and ornamentations are alike quaint and picturesque. After entering, all that remains of the old palace inhabited by Edward VI. and Queen Elizabeth meets the eye. A large portion of this is used as stabling and other offices. The chamber which Queen Elizabeth occupied is situated on the north side of this building; the exterior, of darkened brick-work still, is partly overgrown with ivy. The stable has a wooden roof springing from grotesque corbel heads and is lighted from windows partly filled with stained glass on each side. This apartment is very lofty and of great size, and was the banquetting hall of the old palace. Here were kept the Christmas merrymakings; and at Shrovetide, 1556, Sir Thomas Pope, the governor of the castle, made for the "Ladie Elizabeth, alle at his own costes, a great and rich maskinge, in the great hall at Hatfelde, where the pageants were marvellously furnished." At night the cupboard of the hall was richly garnished with gold and silver vessels, and a "banket of sweete dishes, and after a voide of spices and a suddletie in thirty spyce, all at the charges of Sir Thomas Pope." On the next day was the play of *Holaphernes*. Queen Mary, however, did not approve of these "folliries," and intimated in letters to Sir Thomas that those "disguisings" must cease.

The principal entrance to the mansion is at the northern front; both here and at the south front three pairs of metal gates were placed in October, 1846, when the Marquis of Salisbury, the premier's father, was honored by a visit of Her Majesty and the Prince Consort. By the north entrance you are admitted into a spacious hall, which leads to a gallery of great length, open on one side by a sort of trellis work to the lawn. This hall is in itself a storehouse of curiosities. Arms that men captured from the Spanish Armada, Queen Elizabeth's saddle-cloth that she rode on at Tilbury, wea-

pons taken in the Crimean War, models, etc., enough to interest the visitor's attention for hours, are shown in this noble hall. It was in this wing that the fire broke out in November, 1835, when the Dowager Marchioness of Salisbury, the grandmother of the present marquis, perished in the flames. The building has been well restored; and in the carved wood-work of a mantelpiece in one of the chambers an oval frame has been introduced, containing a well-painted portrait of the deceased marchioness when she was a young girl.

In the chapel at the other end is a stained-glass window of considerable brilliancy. It is of Flemish work, and contains, in compartments, scenes from bible history. The light streams in from the numerous windows on the dark, oak floor, and lights up cabinets and furniture of curious workmanship. Here is a state chair once used by Queen Elizabeth, and the hat which, we are told, she wore when she received the messenger in the park. There are several famous pictures in this room, among them a head of Henry VIII., by Holbein; heads of Henry's queens; a characteristic portrait of Elizabeth and other historic personages. The room can have changed but little through many a long year. As it looks now so it must have looked, one fancies, to Pepys, and pretty much so to King James I. when he was entertained there two hundred and seventy odd years ago. The bedroom in which James lodged has the fittings, it is said, exactly as when the king last used them.

The grand staircase is one of the most magnificent features of this palace home. It is ascended by a flight of five landings, and occupies a space of thirty-five feet by twenty-one in dimension. The balusters are massive and boldly carved in the Italian form; above the hand-rail are represented griffins, armorial lions and other devices; and there is a carved hatch-gate, probably to keep the favorite dogs from ascending to the drawing-rooms. The wall is hung with choice

portraits of the Cecils by Lely, Vandyke, Kneller, Reynolds, etc. Some of these Pepys could never have seen, but the stairway itself he must have passed over on that memorable visit of his. How many noble, how many graceful feet must have walked up and down these stately stairs since his day!

At the foot of the staircase is the door of the dining parlor, and over it a white marble bust of Lord Burleigh. This room is panelled throughout with oak and has an enriched chimney-piece and ceiling. Over the mantel, in gilded letters, is the family motto of the Cecils: "*Sero sed serio*—Late, but seriously." I could not help thinking that most of the family had caught the inspiration of it.

They have all been hard workers; the first earl worked himself to death in the service of King James, and the present marquis is a tremendous toiler. Adjoining the dining parlor are the summer, breakfast and drawing rooms. These apartments are in the east front, and the remainder of the wing on the ground floor is occupied by spacious private apartments, furnished in the olden taste.

On ascending the staircase the first apartment entered is the great chamber, called King James' Room, nearly sixty feet long and twenty-seven wide, and lighted by three immense oriel windows. The vast apartment has the ceiling elaborately decorated in the Florentine style. The whole of the furniture is heavily gilt.

The grand staircase also communicates with the upper end of the great hall, or, as it is called, the Marble Hall, fifty feet by thirty. It is lighted by three bay windows on the side and an oriel at the upper end, near which the lord's table stood in the "golden days" of our ancestors. There is an open gallery at one side enriched with carving, amidst which are introduced lions, forming part of the insignia of the family, bearing shields of the cartouche form, on which

are blazoned the arms. The room is panelled with oak and the walls lined with splendid tapestry brought from Spain.

A gallery one hundred and sixty feet long, hung with valuable paintings and decorated with statues and suits of armor, leads to the library, which is one of the grandest rooms in the mansion. Pepys does not speak of it, but as he saw it, and as others saw it long before Pepys, so we see it to-day. It contains one of the most valuable collections of art, books and MSS. in the kingdom. Here are relics also, and we are shown the oak cradle of Elizabeth, the pair of silk stockings presented to her by Sir Thomas Gresham, and the purse of James I.

The picturesque park and gardens have many interesting objects, besides charming prospects, the richly-colored brick-work harmonizing with the various shades of verdure. They are the crowning glory, the eye of Hatfield. The garden facing the east front is in the ancient geometrical style of the seventeenth century, and below it is a maze which belongs to the same period of taste.

We did not notice the gooseberries, but assuredly Pepys would feel at home could he once more visit the scene. The vineyard is entered through an avenue of yew trees cut in singular shapes straight and solid as a wall, with arches formed by the branches and imitating a fortress, with towers, loop-holes and battlements; and from the center turfed steps descending to the River Lea. No one can imagine the bewitching beauty and quietness of these Armada gardens, whispering of the last enchantment of the middle ages. Here, in this lovely place, in the midst of the June sunlight, with the bright river gleaming through the trees, we may well bid good-bye to Hatfield, while old Pepys's words still echoes in our ears, for this, whatever else be, not, assuredly is "mighty fine."

FRED MYRON COLBY.

THE RECIPROCAL INFLUENCE OF THE MIND AND THE BODY.

WE have spoken in a previous article of the mind's influence upon the body, and now wish to say a few words about the influence of the body upon the mind. God made man in his image. This applies to the body as well as to the mind. "So God created man in his own image, in the image of God created he him; male and female created he them, (Gen. I: 27). There is nothing else in the universe so much like God as man is. Christ did not take the nature of angels, but he became a descendant of Abraham. The time will come when the saints will judge angels. The body of man was made out of material previously created. Nearly every nation has a tradition that its first inhabitants sprang from the soil. The Greeks called themselves *autochthones*, from a belief that they were born on the soil of the land they inhabited.

In Gen. II., which is an amplification of the first chapter, we learn that man is a compound being, consisting of body and spirit, (Gen. II: 7). From analysis, we learn that the body is composed of sixteen material elements, eight of which are metallic, and eight non-metallic. The metallic are aluminum, calcium, copper, magnesium, manganese, potassium, sodium and iron; and the non-metallic are carbon, nitrogen, oxygen, hydrogen, chlorine, phosphorus, sulphur, and silicium. Traces of a few others have lately been discovered. This was the most perfect machinery ever made. It was not, however, until God breathed into it the breath of life that man became a living being. The Hebrew word for life, in (Gen. II: 7), is *hayyim*, from the verb *hayay*, to live; it is in the plural number, and should be translated "lives" instead of life. This takes a prop from under the edifice of materialism.

The body is the house in which the mind dwells. When the house wears out, or is destroyed, the inhabitant must

necessarily leave it. Any injury to the house will for a time affect its dweller. It is not difficult to understand why a vigorous mind requires for its home a strong body. The mind intimately sympathizes with every change in the body. The condition of the stomach and the action of the heart affect the attention, the comprehension, and the memory. A change in the structure and functions of the brain induces insanity, which, indeed, is a very helpless and deplorable condition.

From the wonderful influence of the body upon the mind, the following arguments have been deduced in favor of materialism.

1. That we know the mind only as connected with a material organism. The activities and phenomena of the mind are exerted through the body, and we only know the mind as connected with a material structure.

2. The power and capacities of the mind are developed along with those of the body. As the lower organs of the body are the first developed, so the lower powers of the mind are the first unfolded.

3. All our knowledge chronologically comes from sensation; so the mind is dependent upon the body for much of its knowledge and many of its enjoyments.

4. Our first acquired ideas all have reference to sensible objects. From these facts the materialist concludes that the mind is only a culmination of a series of material existences.

To the above we must add the following facts, and then I think we can safely reach a conclusion:

1. The phenomena of the mind are in kind unlike the phenomena of the body. Extension and impenetrability are the essential properties of matter; while thought, feeling, and volition are the essential attributes and characteristics of the mind.

2. While our knowledge is chrono-

logically developed by sensation, these are primary principles which logically exist in the mind previous to this development.

The maxim *Nihil in intellectu, quod non prius in sensu*, is not strictly correct. There are some things in the intellect not in sensation; for there are ideas and emotions derived from man's moral nature.

3. The mind is self-active. The brain is its organ and through this instrument it communicates itself to the world. Every mental action uses up some brain tissue, and there has to be a new supply. While the brain is the organ of the mind, the brain is material, and matter can not move itself. The mind must therefore be impelled to action by its own energy.

4. The mind distinguishes itself from

the brain. There were some ancient philosophers who claimed that the world created God instead of having been created by him. Analogous to this is the doctrine of modern materialism, which teaches that the brain is not the instrument of the mind, but a machine which produces the mind. The most eminent of Greek philosophers clearly distinguished between the mind and the organ through which it acts; and we by self-consciousness can certainly do the same thing. The artist is conscious that he forms in his mind a picture before he places it upon canvas. There is a great distinction between the musician and the instrument upon which he plays. Not even a Beethoven could play well upon a poor organ; nor can the mind act well when it has a poor brain upon which to play. J. W. LOWBER, PH. D.

THE CENTENNIAL OF THE NATIONAL CONSTITUTION.

ON the 17th of September there will be celebrated in Philadelphia the first Centennial of the Framing and Promulgation of the Constitution of the United States. This celebration comes in as a fitting close of the great series of events in the formative period of our nation that may be said to have begun with the protest in 1774 of the first Continental Congress, against the tyranny of the Stamp Act, the Tea Act, the Boston Port Bill and the other vexative restrictions, placed by England on the trade and industry of the then American Colonies. It will be of interest to our readers, we are sure to know the character of the celebration as outlined by the Committee having it in charge, and also to take a glimpse backward at the first celebration in 1788, of the passage of the Constitution by the representatives of the states.

The Legislature of New Jersey on the 2d day of June, 1886, passed resolutions inviting the Governor and Representatives of the thirteen original States to as-

semble in Philadelphia, to consider the propriety of a national celebration of the centennial anniversary of the framing and promulgation of the Constitution of the United States. In accordance with this invitation, a convention of the Governors and Representatives of the thirteen Colonial States and of citizens, was held at Philadelphia, September 17, 1886 in the hall of the Carpenters' Company. There were present, the Governors of Delaware, Georgia, Maryland, New York, Pennsylvania, Rhode Island, South Carolina and Virginia.

In consequence of resolutions adopted at this meeting, letters were addressed by the Hon. Fitzhugh Lee, Governor of Virginia, as chairman of the Committee of Governors of the Colonial States, to the Governors of all the States and Territories of the Union, inviting them to appoint commissioners to be present at a convention to be held at Philadelphia, December 2, 1886.

In response to this request commissioners were appointed by the Governors

of the following States and Territories, viz : Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Dakota, Idaho, Montana, Wyoming.

This Convention of December 2, 1886, elected Hon. John A. Kasson of Iowa, President, and Hampton L. Carson, Esq., of Philadelphia, Secretary. A sub-commission was selected, of which Amos R. Little, Esq., was made Chairman, the President and Secretary of the Convention being added as *ex-officio* members. A committee of citizens was also formed, of which Thomas Cochran, Esq., was selected as chairman. The name of "The Constitutional Centennial Commission," was adopted as the name of the Commission, and a certain plan of exercises was resolved upon.

The chairman of the committee appointed by the convention to prepare an address to the people of the United States made a stirring and patriotic report, which was adopted, as follows :

"The Convention of Delegates appointed by the several states and territories to take steps towards the celebration of the signature of the Constitution, feel it their just duty to call the attention of the country, and of both press and public to the approach of this great anniversary.

"It becomes us, also, to recall the characteristics of the change in the government of states effected by the tranquil adoption of a system of checks to the heated impulses which political strife has always aroused. The barrier to hasty legislation effected by an organic law, unchangeable except by processes involving delay, and so securing an interval in which reflection might resume its sway over passion, was to all practical purposes a novelty a century ago.

"The success of the great experiment

depended eventually upon the reverence with which men might be brought to regard the fundamental and supreme law, and upon the determination to consider it, in the nature of things, inviolable, except by the surrender of every respectable attribute of an upright people.

"Upon the existence of this reverence the statesmen of 1787 relied, and to its existence and preservation their descendants owe whatever is valuable in the institutions they inherit. To strengthen and quicken the sense of the sacredness of this principle and the paramount duty of observing it, and to admonish our countrymen that only by intelligent perception of its transcendent importance can be assured a continuance of the blessings which make us the admiration of the world, seem a prominent duty of this commission.

"The successful formation of the Constitution was the most momentous event in the history of the American people and marks an epoch in the history of the civilized world. Under the Constitution this great nation has grown up and prospered, and on the continued success of our system of constitutional government depend, in large measure, the future welfare and happiness, not only of our own people, but of mankind. We believe that the people appreciate, in a solemn and grateful spirit, the character of this celebration, and that they will give it that hearty support throughout the length and breadth of the land, which will make it in all ways worthy of the occasion and the event."

THE EVENT OF A CENTURY AGO.

On July 4th, 1788, the citizens of Philadelphia celebrated both the Declaration of Independence and the establishment of the Constitution, proposed by the late general convention of the States, then solemnly adopted and ratified by ten of those States. The celebration began by a salute to the rising sun by a full peal from Christ Church steeple and a discharge of cannon from the ship "Rising Sun," anchored off Market

Street. At the same time ten vessels, named in honor of the ten adopting States and superbly decorated, could be seen arranged the whole length of the harbor, in the following order: New Hampshire opposite to the Northern Liberties; Massachusetts opposite to Vine Street; Connecticut to Race Street; New Jersey, to Arch Street; Pennsylvania, to Market Street; Delaware, to Chesnut Street; Maryland to Walnut Street; Virginia, to Spruce Street; South Carolina, to Pine Street and Georgia to South Street.

The several divisions which were to compose the grand procession, began to assemble at 8 o'clock in the morning at and near the intersection of Third and South Streets. At this point the line of march commenced, and continued along Third to Callowhill Street, thence up Callowhill Street to Fourth Street, thence along Fourth Street to Market Street, and thence to Union Green, in front of Bush Hill, William Hamilton, Esq., having kindly offered the spacious lawn before his house, at Bush Hill, for the purpose of the day. About 9.30 the grand procession began to move in the following order:

First. Twelve axe-men, dressed in white frocks with white girdles round their waists, and wearing ornamented caps, and headed by Philip Pancake.

Second. The First City Troop, commanded by Captain Miles.

Third. Independence, represented by John Nixon, on Horseback, bearing the staff and cap of Liberty; under the cap a white silk flag, with these words, "Fourth of July, 1776," in large gold letters.

Fourth. Artillery, commanded by Captain Moreland Fisher.

Fifth. French Alliance, represented by Thomas Fitzsimmons, on horseback, carrying a flag of white silk, bearing three *fleur-de-lys* and thirteen stars in union over the words, "Sixth of February, 1778," in gold characters. The horse on which he rode was the same on

which Count Rochambeau rode at the siege of Yorktown.

Sixth. Corps of Light Infantry, commanded by Captain A. G. Claypoole, with standard of the First Regiment.

Seventh. Definite Treaty of Peace, represented by George Clymer, on horseback, carrying a flag adorned with olive and laurel; the words, "Third of September, 1783," in gold letters, pendant from the staff.

Eighth. Col. John Shee, on horseback, carrying a flag, blue field, bearing an olive and laurel wreath, over the words, "Washington, the friend of his country," in silver letters.

Ninth. The City Troop of Light Dragoons, Captain W. Bingham, commanded by Major W. Jackson.

Tenth. Richard Bache, on horseback, as a herald, attended by a trumpeter, proclaiming, "A New Era," the words "New Era" in gold letters, pendant from the herald's staff, with an appropriate verse.

Eleventh. Convention of the States, represented by Peter Muhlenberg, on horseback, carrying a blue flag, with the words "Seventeenth of September, 1787," in silver letters.

Twelfth. Band of Music.

Thirteenth. The Constitution, represented by Chief Justice McKean and Judges Atlee and Bush, in their robes of office, seated in a lofty ornamented car, in the form of a large eagle drawn by six white horses, the Chief Justice supported a tall staff, on the top of which was the cap of liberty, under the cap the new Constitution, framed and ornamented, and immediately under the Constitution the words, "The People," in large gold letters affixed to the staff.

Fourteenth. Corps of Light Infantry, commanded by Captain Heysham, with the standard of the Third Regiment.

Fifteenth. The gentlemen representing the States that had ratified the Federal Constitution, each carrying a small flag, bearing the name of the State he represented in gold letters, viz.: Duncan

Ingraham, New Hampshire; Jonathan Williams, Jr., Massachusetts; Jared Ingersoll, Connecticut; Samuel Stockton, New Jersey; James Wilson, Pennsylvania; Colonel Thomas Robinson, Delaware; Hon. I. E. Howard, Maryland; Colonel Febiger, Virginia; W. Ward Burrows, South Carolina; George Meade, Georgia.

Sixteenth. Colonel William Williams, on horseback, in complete armor, bearing on his arm a shield emblazoned with the arms of the United States.

Seventeenth. The Montgomery Troop of Light Horse, commanded by Captain James Morris.

Eighteenth. Consuls and Representatives of Foreign States in alliance with America.

Nineteenth. Hon. Francis Hopkinson, Judge of the Admiralty, wearing in his hat a gold anchor, pendant on a green riband. He was preceded by the register's clerk, carrying a green bag, filled with rolls of parchment, the word ADMIRALTY in large letters on the front of the bag.

James Read, Register of Admiralty Court, wearing a silver pen in his hat.

Clement Biddle, Marshal of the Admiralty, carrying a silver oar.

Twentieth. Wardens of the Port and Tonnage Officer.

Twenty-first. Collector of Customs and Naval Officer.

Twenty-second. Peter Baynton, as a citizen, and Colonel Isaac Melcher, dressed as an Indian chief, in a carriage, smoking the calumet of peace together.

Twenty-third. The Berks County Troop, commanded by Captain Ph. Strubing.

Twenty-fourth. The New Roof, or Grand Federal Edifice, on a carriage, drawn by ten white horses. This building, thirty-six feet high, was in the form of a dome, supported by thirteen Corinthian columns, raised on pedestals, the frieze decorated with thirteen stars. Ten of the columns were complete, but three left unfinished. On the pedestals of the

columns were inscribed, in ornamented letters, the initials of the thirteen American States. Round the pedestal of the edifice these words: "*In union the fabric stands firm.*"

The Grand Edifice was followed by a corps of over 450 carpenters, saw-makers, file-cutters, &c.

Twenty-fifth. The Pennsylvania Society of Cincinnati and militia officers.

Twenty-sixth. Corps of Light Infantry, commanded by Captain Rose.

Twenty-seventh. The Agricultural Society, headed by their president, Samuel Powel, and Major Hodgdon, bearing a banner representing industry.

Twenty-eighth. Farmers headed by Messrs. Richard Peters, Richard Willing, Samuel Meredith, Isaac Warner, George Gray, Charles Willing, and others. One of the plows in this department, drawn by four oxen, was directed by Richard Willing, in the dress and character of a farmer.

Twenty-ninth. The Manufacturing Society, with spinning and carding machines, looms, &c. The carding machine, worked by two men, carding cotton at the rate of fifty pound weight per day, was placed on a carriage thirty feet long, eighteen feet wide, thirteen feet high, drawn by ten horses. Also several other machines in full operation. The carriage was followed by a large number of weavers.

Thirtieth. Corps of Light Infantry, commanded by Captain Robinson.

Thirty-first. The Marine Society. Ten captains, five abreast, followed by the members of the society, six abreast.

Thirty-second. The Federal Ship Union, mounting twenty guns, commanded by John Green, three lieutenants and four boys in uniform. The crew, including officers, consisted of twenty-five men.

The ship was thirty-three feet in length, width and rigging in proportion. Her hull was the barge of the ship Alliance, the same which formerly belonged to the Serapis, and was taken in the

memorable engagement of Captain Paul Jones, in the *Bon Homme Richard*, with the *Serapis*. She was mounted on a carriage drawn by ten horses.

Boat-builders in a boat-builders' shop, eighteen feet long, eight wide, thirteen feet high, drawn by four horses. Seven hands were at work building a boat thirteen feet long, which was actually set up and nearly completed during the procession. Then followed large deputations of the different trades,—sail-makers, ship-carpenters, ship-joiners, rope-makers, and ship-chandlers, merchants and traders, and others.

Thirty-third. The trades formed an important feature of the procession, and were followed by officers of Congress, Supreme Executive Council of Pennsylvania, Justices of the Court of Common Pleas, Sheriff and Coroner, Board City Warden, City Treasurer, etc., members of the bar, the clergy, physicians, the county troop of horse, commanded by Major W. McPherson, bringing up the rear. The length of the line was a mile and a half, the distance marched about three miles, and time consumed over three hours.

Francis Hopkinson, who himself participated in this procession, wrote that it was "an exhibition which for novelty, splendor and decorum justly merited universal admiration and applause. If, beside the magnificence of the thing itself, we take into consideration the important occasion that induced it, it must be acknowledged to have been an object most interesting and truly sublime."

It is of course but natural to expect that the celebration of 1887 will surpass that of 1788 in respect to grandeur and magnificence in every detail. To surpass it, however, in the joy and enthusiasm of the participants will not be such an easy task. The State of Pennsylvania has appropriated \$75,000; citizens of Philadelphia have subscribed over \$20,000. The following sums have been appropriated by other States, viz.: Connecticut, \$18,000; Rhode Island, \$25,000;

Delaware, \$2000; Massachusetts, \$40,000. New Jersey has authorized the Governor to send its militia at the cost of the State. Maryland, Virginia and South Carolina have arranged to send troops. Up to July 1st the Governors of these States, as well as those of Maine, New Hampshire, New York, North Carolina, Oregon, Nebraska and Texas, had accepted the invitation of the Commission to come to Philadelphia.

The great family of States should, and there is every reason to hope, will appear at the gathering on this historic occasion, without the absence of a single member.

President Cleveland will preside at the ceremonies, and General Sheridan will be designated by the President to command the combined forces of State and United States Troops which will take part in the grand parade. The Civic and Industrial display will be marshalled by A. Loudon Snowden, Esq.

Mr. Justice Miller, of the Supreme Court of the United States, will deliver an oration, and a poem will be delivered by a prominent writer.

The great success of the celebration is, of course, the wish of every loyal American.

The Alpine Rose.

(From the German.)

From mossy heart on mountain high

Unfolds the lovely Alpine rose,

Though veiled with snow its tender eye,
It solitude's pure poem glows.

No zephyrs kiss its blushing leaves,

It blooms alone in dreary space,

Yet with a smile of bliss it wreathes

The lonely mountain's frowning face.

When through the heavens so cold and calm

The glooming glaciers grand arise,

Like silent joy it breathes its balm,

Though all unseen its beauty lies.

Thrice blest the hearts where love's sweet
rose

Can through the frosts of sorrow bloom,

'Till over all their Alpine woes

Its tender smile enwreathes the gloom.

L. A. MILLARD.

USE AND CULTURE OF MEMORY.

IN a New York paper this subject, which has latterly become one of particular interest, is considered pleasantly by a writer who has been talking with lawyers and actors :

"There is one fact perfectly well established about the memory now, and that is that more than any other faculty of the mind it may be cultivated, strengthened and improved. It stands absolutely alone in this respect. The imaginative faculty, the reasoning powers, indeed all the natural operations of the mind, may be developed ; but the memory, properly trained, accomplishes marvels, and, like Jack's beanstalk, grows to the skies in a single night, or at least within a short period of time. Indeed you may plant the seed and raise the flower. Cases stand on record where men and women have started with no memory at all, with positive inability to recall past events, names, figures, dates, etc., and have educated themselves to do all this with promptness and certainty. And this much can not be said for any other of our mental possessions.*

As an illustration of the closeness with which lawyers study the human memory, the writer remembers being very much impressed one day, several years ago, with some comments made by the late Francis Bangs on the testimony of a witness whom he had examined the previous day in the course of a well known case which was then pending. Mr. Bangs was a marvelously keen and rapid questioner on cross-examinations

and he had tripped up the witness referred to so that he had contradicted himself flatly. The point had no particular bearing on the case, but the unexpected withdrawal by the witness of a statement which he had previously made and reiterated with peculiar positiveness tended to affect his credibility.

"And yet," said the lawyer, speaking of the circumstance, "the man was all right, I think. Bad as the thing looked, and his whole testimony was undoubtedly clouded by the contradiction, I believe he was honest in his first misstatement. I have been absolutely amazed more than once by the persistency with which witnesses often declare that they have done things which they have never done, and they do not get the thing straight until questions under cross-examination call up some association of ideas or actually demonstrate to them that what they say is impossible. And then they take it all back. If a witness of this kind is on the other side I don't mind, but if the witness belongs to me it makes me feel pretty ugly."

QUESTIONING A WITNESS.

It is the readiness of memory in a lawyer which makes him an adept at cross-examination. It is his skill in this direction which enables him to yoke the answer just given with the answer of an hour before and probe the witness as to its inconsistency. And it behooves the man of law, therefore, to cultivate his memory, just as it would appear to be the wisest move on the part of the modern aldermanic witness to cultivate

* It should be remembered by the reader that memory is a property of the faculties respectively and not a special faculty itself. Therefore a faculty that is strong in a person will exhibit more power to retain impressions than one that is weak. By the exercise of faculties their capacity of retention is increased. It is attention or the continued activity of the intellectual faculties in any one direction that contributes to special activity in recalling afterward what has been the subject of that activity. The writer somewhat over states the effect of concentrated exercise of the mind, but it is true, nevertheless, that when one's whole interest is given to some important matter, the memory becomes greatly increased, yet it is usually a temporary affair; when the organic excitement abates there will be but little difference shown in the general power to recall events. The specialization of memory is shown by people in their capacity to retain occurrences that concern their vocation or business, while matters that relate to other callings they forget as soon as interest in them has ceased. This proves the relation of memory to the faculties as a quality.—[EDITOR PHRENOLOGICAL.

his forgetfulness. But this is only an appearance. It is only the witness who remembers well and is able to recall the circumstances vividly about which he is questioned, and can adjust their relative importance, who can forget with any success. The *non mi ricordo* man, who forgets everything, or clumsily talks, is soon tripped up.

The actor would seem to have more use for his memory than the men and women of other professions. He is compelled not only to remember ideas but exact words, and when his task on a single production is multiplied by the number in which he takes part during his career, the results which he achieves appear almost incredible, and it is obvious that no such task is made on the actor's memory now in these days of combination and indefinite repetition of parts, as was made in the days of stock companies, when programmes were in a constant condition of rearrangement and the bringing forward of a new play was almost a nightly occurrence. Then parts were studied over night, or at the best within a few days. And two or three rehearsals were considered sufficient in the way of preparation. Under such circumstances the actor was constantly called upon for feats of memory.

A THOUSAND PARTS.

"I have no doubt," said an old actor the other day to the writer, "that many of the players of thirty or forty years ago, who made the profession their life work, learned during their career as many as 2,000 parts. I have learned 1,000 parts myself, and I became identified with runs, as they are called now,

very early in my career. Take, for instance, the case of a player in a stock company in St. Louis or Pittsburg, when it was the custom of the star to travel and find a different supporting company waiting for him in each different city he visited. I tell you the supporting company had to do some tall memorizing. It was no unusual thing for Forrest to change his bill every night. Those were the times that a man had to have a quick study or he was not much use in the profession. Twenty lengths were nothing to him."

"How much is a length?"

"A length is forty lines. It is the measure by which the theatrical copyist was paid, and is still paid, because the type-writer is not tolerated in any good stock theatre. The copying of plays and parts is one of the perquisites of the prompter. The copying of a play by an old copyist is a matter of twenty-five dollars. But then the book was perfectly marked, so that if a stage manager took it up he could rehearse from it at once without having to devise exits and entrances and stage business as he proceeded. These type written copies of plays, costing eight or ten dollars, are mere transcripts of the dialogue. When they are finished and tied with blue ribbons they are only half done. But outside of the desire among old managers to cherish good, old theatrical customs, the copying of plays is left to the theatre, because under such arrangement no copy of a valuable manuscript can possibly get into the hands of pirates. It has been since the introduction of the type writer that stolen and printed versions of plays have been so plenty."

TRUE TO HIMSELF.

THE Rev. Dr. McLeod tells a story of a Scotch boy who had obtained a place in an English business office, and everything seemed pleasant and hopeful until his moral courage was severely tested in a very unexpected way:

It was part of the business of that office to have ships coming and going; and it was the rule that when a ship came into port, its captain sent word to the office that he had arrived, and was now awaiting instructions as to when

he should discharge the cargo. It was the duty of the manager of the office to send back instructions to the captain where and when this was to be done.

A few months after this little lad from the North came to the office, a ship laden with coal came in, and the usual message from the captain came; but somehow or other no answer was sent back to him. The captain waited a week, and still no word came back. Now, that was very hard on the captain. Until the ship got free of its cargo, it had to lie idle in the dock; and all who belonged to the ship were kept idle, too. At the end of a week the captain sent word to the office that his ship had been kept so long waiting for instructions where to discharge its cargo that it had missed a good offer of a new cargo, and the office would have to pay him for the loss. This payment is called "demurrage."

When the manager of the office got this message from the captain, he was very angry. He thought he had sent instructions where to discharge the cargo, or he had made himself believe he had sent them. At any rate, he sent for the lad from the North, and said to him, "Didn't I send you down to Capt. Smith with instructions when and where to discharge his cargo of coal?"

The little lad said "No, sir; I don't remember being sent down."

"Oh, but I did," answered the manager. "You have forgotten."

And there, for a time, so far as the office was concerned, the matter was allowed to rest.

But the captain did not intend to let it rest there. He applied for his demurrage; and when that was refused, and his word that he had received no instructions was disbelieved, he took the master of the office to law, and by his complaint came before the judges in the court of law.

The day before the trial, the manager came to the little Northern lad, and said to him, "Mind, I sent you to the dock

with those instructions to discharge the coal."

"But, I assure you, I can not remember your doing so," said the lad.

"Oh, yes, but I did. You have forgotten," said the manager.

It was a great trouble to the lad. He had never been sent to the dock. He could not say he had been sent; and he fore-saw that he would have to say before the judges what would certainly offend the manager, and would probably lead to the loss of his excellent place.

On the morning of the trial, he went to the court. The manager came up to him and said, "Now, our case depends entirely on you. Remember, I sent you to the dock with instructions where to discharge the coal. Now, if you tell the judges that you were not sent to the dock, I shall lose the suit."

The poor lad once more tried to assure the manager that he was mistaken; but he would not listen.

"It is all right," he said, hastily. "I sent you on such a day, and you have got to bear witness that I did; and you see it clearly!"

In a little while he was called into the witness-box, and almost the first question put to him was whether he remembered the day when Capt. Smith's ship came in. Then came this question: "Do you remember during that day being sent by the manager of the office to the dock with a letter for the captain of the ship?"

"No, sir."

"Don't you remember taking instructions to Capt. Smith to discharge his coal?"

"No, sir."

"Where you not sent by the manager of the office to the coal-ship on that day?"

"I was not, sir."

"Nor next day?"

"No, sir."

"Nor any other day?"

"No, sir."

The gentleman who put the questions was a barrister. He had been engaged to win the case for them. But when he heard the little lad's replies, he saw that the manager was in the wrong ; and he turned to the judge, and said, "My lord, I give up this case. I had instructions that this witness would prove that a message to discharge had been sent to Capt. Smith, and it is plain no such proof is to be got from him."

So the case ended in the captain's favor, and against the office in which the little lad had found so excellent a place.

He went to his lodgings with a sorrowful heart, and wrote to his father and mother that he was sure to be dismissed. Then he packed his trunk to be ready to go home next day ; and in the morning, expecting to get his dismissal, he went early to the office. The first to come in after him was the master. He stopped for a moment at the little lad's desk, and said, "We lost our case yesterday."

"Yes, sir," answered the lad ; "and I was very sorry I had to say what I did."

By and by the manager came in ; and after a little time he was sent for to the

master's room. It was a long while before he came out. Then the little lad was sent for.

"I am going to be dismissed," he thought to himself.

But he was not dismissed. The master said to him, naming him, "I was angry yesterday, but not with you. You did right to speak the truth ; and to mark my approval of what you did, I am going to put you in charge of all the workings and sales of our Glenfardle mine."

Then he sent for the manager, and told him what he had said, and added : "And the young man will make his reports direct to me." Six months after the manager left the office, and, young though he was, the little lad was appointed to his place ; and before as many years had passed, he was admitted as junior partner in the firm. He is now at the head of the entire business—the managing partner.

In this case the truth was the best. But I want to say that if things had turned out otherwise than they did, and he had been dismissed, it would still have been the best for him to speak the truth.

RENEWAL.

What of the day, trav'ler, what of the day ?
How, from thine outlook, dost thou read
the signs ?

Cold is the day, and clouds in frowning
lines

Cover the dome of blue ; no cheering ray ;
'Tis dark, so dark it fills me with dismay.

Nay, trav'ler, look again. Too quickly
sped

Thine eye from West to East across the
sky,

The far-arched prospect earnestly descry
With vision keen, and mark each cloudlet
red.

Darker 'tis grown and colder than before ;
The vault pitch-black forebodes impending
storm,

Hark, yon thunder-peal ! it rolls and growls
on—

And see that horrid blaze—vast sea of
gore—

The lightning's work,—my soul faints with
alarm.

Nay, trav'ler, be assured the storm will
pass ;

'Tis in thy low'ring soul the terror lies ;
Those sordid bands cast off, that veil thine
eyes ;

Sunder the tight'ning coil whose foul em-
brace

Thy heritage of peace and liberty denies.
Now look again, with firm, undaunted gaze,
Beyond the pall of cloud, beyond the light-
ning's blaze.



O fateful lot! I sink with chill affright;
 What hope for one whose every passing
 hour,
 But madly spent the gifts that were his
 dower?

The furies wait their prey—for me no
 light.

Nay, trav'ler, worn, thy journey is not
 done;

Here turns thy road, the furies leave be-
 hind,

Give me thy hand, and calm that
 troubled mind;

Soon will the storm be o'er, and bright
 the sun,

No backward glance; to evil lend not
 ear—

In Heaven's name I offer thee good
 cheer

I *will* go on; thy words my strength renew;
 The frowning steeps I'll brave with earnest
 stride,

Truth my support, and Faith once more my
 guide;

Ho, in the East a broad'ning rift of blue—
 And see yon fringe of gold, with magic
 spell,



The curtain gloomy from the vault dispel!
 The day grows bright; joy, joy, my soul!
 all's well.

A GIRL'S PROBLEM.*

DEAR MARGARET MCKENZIE :

LET me stretch out a greeting hand and wish you a god-speed in the way of your choice.

Is there any reason under the sun why you should not make it also your way in fact, if you have the ability to meet its requirements? There may be impediments, to be sure, but these only quicken desire, and strengthen determination, if you do not yield to a morbid dread of them, in which case you know you are quite likely to be overcome.

Now I am resolved upon a work less conventional for a woman, perhaps, than the art of building houses. I mean to run an engine.

The reason that I tell you what I mean to do—instead of doing it without pretension,—is because I am only sixteen, and can not yet assume so grave and important a responsibility. But I am training soberly and earnestly for it, and I have no idea of failing. It is not a girl's work, I suppose; I have been told so. I can not help that. It is none of my business. I can not think about it. I do not understand what they say of such things. It seems to me they talk a great deal of stuff about a matter which could be much more easily judged of by experiment. But this is no concern of mine. I only know that I shall run an engine. From childhood the simple sight of that grand power has thrilled me with desire, and fired me with a purpose to understand and rule it, and its wild cry sounding through the air seems always a summons that I must obey.

I have studied its wonderful mechanism so thoroughly that I could take it in pieces and put it together again, and I have incommunicable suggestions of improvements that I believe I could work out in a lifetime of devotion to its interests and progress.

Once — let me tell you — once — it was the marked day of my life

— I ran for a hundred miles a locomotive attached to a train of passenger cars. It was a solemn, awful experience. Realizing the trust of a thousand lives committed, unconsciously, to my hand, I felt face to face with God, and alone with him, as I leaped chasms, spanned rivers, circled mountains, shot through tunnels, and rounded curves that hid, I knew not what colliding force, for the wreck of which I should have held myself forever responsible.

Not a word was spoken through those strange, eternal hours, but at the terminating point of our course, the engineer, under whose stern, watchful eye I had sat with blanched cheek, but unfaltering nerve, rose to his feet, and gravely offered me his hand. He had known my ambition, was aware of my long, earnest study, was satisfied by severe examination of my understanding of the laws with which I aspired to deal, and had that day tested, in secret, my courage and power for practical work.

"You have done nobly," he said in simple, honest, manly fashion. "We can trust you. Study, work, and wait, as we all must do, until the opportunity is ripe for action."

My heart thrilled with a feeling of exultation worth years of struggle to attain, as, wrapped in my woman's cloak and veil, I stepped unrecognized, among the people whom I had brought safely to their destination.

"We can trust you," sounded the words of the blunt engineer in my ears, and I was strengthened to face the yet unseen dangers which I know must meet me in my chosen career. If the way is rough all the greater must be its triumph. I shall shirk no duty that justly belongs to my profession, and I shall strive diligently to come up to its highest standard of excellence.

Do we expect gallant acceptance of

* See July PHRENOLOGICAL JOURNAL for first article.

our stammered apologies [for failure of accomplishment in what we undertake, because we are women? Not *you*, Margaret MacKenzie, and not *I*.

RUTH CARLYLE.

MY DEAR YOUNG LADY:

I have read with absolute pain the paper which your unknown friend thrust maliciously upon the attention of a class of readers to whom it can not fail to work incalculable mischief, unless the weakness and fallacy of its specious argument be, at once, exposed.

I am not, of course, casting any reflection on you for the publication of a matter that was purely a morbid, private speculation, tossed carelessly and justly in your waste-basket; but the indiscreet and meddlesome person who dragged it to the light, and is, no doubt, this moment, smiling slyly over the effect, may take as much of the reproof here offered as he or she feels inclined.

I look upon your whole trouble, my dear girl, as the direct influence of a disturbing element which is working balefully to overturn every established law and relation in domestic life, and inaugurate a reign of anarchy and confusion in which there will be experienced on all sides, a feeling of dissatisfaction, discomfort, and misery unknown in the previous natural and normal condition of society, however that may be executed by the mad radicals of the day.

All the vaunting in the world, by discontented, self-imagined "reformers," will not make one crooked thing straight, nor result in anything but inharmony and unhappiness to those who listen, and are ruled by it. You find in your present perplexity, Maggie MacKenzie, only the foreshadowing of difficulties that will besiege you perpetually in the way to which you vainly fancy yourself attracted, but which is too utterly uncongenial, and even repulsive, to the true instincts of feminine nature to be entered with any prospect of success. No woman can deliberately set aside her

natural and legitimate duties, and voluntarily assume those belonging to another order of talents, without suffering justly, not only from the loss of her own rights, but from the disappointment and mortification of failure in her attempted usurpation of privileges which she has not the capacity to grasp.

It is very true, certainly, that women do fill, in a fashion, some of the positions of men, but when it is done with any degree of success there are exceptional opportunities, or extraordinary abilities, which the majority of aspirants can not rely upon, and though these shining lights are upheld as examples of womanly power, they are simply *ignes fatui*, luring the dazzled and bewildered follower into mire and pitfall, and often to moral ruin. In point of fact, this lauded success is frequently failure of the saddest sort, for it is acquired at the cost of the truest and holiest attributes of womanhood, and by so much it deteriorates the finest quality, and lowers the standard of the whole sex. Worse than this, even, it corrupts the purest principles, and detracts from the noblest virtues of manhood by repelling the tender spirit of protection, and weakening the sense of responsibility and guardianship which constitutes the highest and most God-like elements of the masculine character. One may feel already, indeed, the warning of that reverent, courteous, chivalric bearing, which distinguishes the high-bred gentleman in all relations and associations with woman, and there is a perceptible lessening of the watchful care and attention, which is so far a necessity to the truer type of our sex, that we can not regard the cause of its decline with any degree of complacency or respect.

Really and truly, my dear girl, there can be no doubt, that if the utterly false conceptions of woman's rights and duties continue to be urged and to exert such deplorable influence upon the opening minds of coming generations, the result must inevitably be a complete inversion and demoralization of the race.

For this reason, I contemplate the eager, restless, unsatisfied questioning of your letter with keenest regret and pain, recognizing in the spirit of strife and rebellion which you exhibit the pernicious effect of the baneful doctrines that are working insidiously to undermine and disorganize society, and which I shudder to think, may cast their upas shadow over my own young daughter, whom I have earnestly and prayerfully endeavored to train to clear perceptions and a just feeling in the matter of social rights and relations. And I would say to you, Miss Maggie, as I say to her, strive to cultivate and develop, to their utmost capacity, the natural and womanly gifts which you inherit, and exercise in your own heaven-appointed sphere of life and duty the charms and graces that make you, in the eyes of men, second only to the angels in power and influence. It is the height of folly to suppose, as some ill-balanced and irrational people do, that greater good may be accomplished by women in the bold assumption of offices for which they are not fitted, than in the modest fulfillment of conditions, essentially and irreversibly their own, and which may be glorified and exalted to the full measure of their aspiration and ambition.

It is with ourselves, my dear girl, and not with the world that we have a work to do. To make our persons beautiful and attractive, and to grow so lovely, gracious, winning, sweet and irresistible in manner, so as to control, absolutely, the rougher, stronger forces of society, is better than to strive, with rebellious and impatient spirit, to perform imperfectly the labors which belong to men.

And let me caution you against the weakness of under-estimating the value of dress, and of making scornful contrast between woman's natural love and man's habitual neglect of it. Indeed, there is no study more important to feminine interests than the exhaustless resources of the toilet, which offers always some fresh charm and grace to her,

who, with trained eye and skilled hand, intelligently seeks its favor. To understand perfectly the laws of adaptation in costume, and to harmonize with style of face and figure the tasteful and beautiful varieties of fashion in apparel, is a much higher, finer art, than to carve a statue, or to paint a picture, which is dealing simply with dead, inert matter having no vital issues.

All this sneering comment on dress originates with the detestable, long-haired masculine reformers, and with the so-called strong-minded class of women, who are themselves ridiculous examples of the effect of an utter disregard of the proprieties and decencies of personal attire. And from the same source comes the bitter and sarcastic reflections on marriage, and the advancement of the very erroneous idea that women would be happier if they had occupations which rendered them independent of the support and protection of men. As a rule, this sort of reasoning may be set aside as the morbid, diseased outgrowth either of disappointment in making a suitable matrimonial alliance, or of a failure to make any at all. In your own heart, my child, you have a feeling, unconfessed perhaps yet strong and vital as your life, that marriage is the one beautiful and delightful possibility of the future, and the lover for whom you wait with unconscious expectation is the focus about which all your thoughts gather in a rapture, that no other interest could ever inspire. This is right and natural, and I pray you do not let the corrupt influence of false teaching shatter your faith in the one immutable good of woman's life, nor shame you in the exercise of those innocent, maidenly arts by which the good is won. Be true to your instincts, and shun the poison breeding breath of counsels that would unsettle your reason and leave you in sadder confusion and perplexity than your privately studied problem already shows.

Perhaps, after all, the printing of your paper may result in partial good by giv-

ing opportunity to combat the evils which are the unrecognized source of it. I hope we shall have no new revelations of disorderly ambitions which may never, in the nature of things, be satisfactorily

realized. I shall be very glad to know that I have helped you to clearer light in your difficulties.

Your friend,

MRS. CHARLES EDWARD ANDERSON.

HANDWRITING AND CHARACTER.

MANY are the characteristics of men, but methinks they are not more varied than their chirography. Were one sufficiently skilled, why could he not read character as well from penmanship as from conduct? What can be done by the old-fashioned way of investigation—an argument from conjecture? Let us make an argument as well as we can : dogmatically.

Imprimis, a man of nice tastes and nice notions will write a nice hand.—I know an eminent writer of youth's literature whose hand is as nice as his taste : every line formed on principles almost mathematical—every letter exactly its proper height, the page as handsome as a page of print, and much more interesting to read than the same matter set up in type. He is nice in another sense than the colloquial sense—with nice—or finical—notions of things social and literary.

Again, a slovenly man will write a slovenly hand ; a punctilious man a precise hand, a slow man a labored hand ; a hasty man a fitful hand, a ponderous man a heavy hand.

But other circumstances than character oftenest influence the quality of a person's chirography: haste renders even the nice hand of the nice person referred to different in most of its qualities from its natural character. It becomes rambling, straggling, sprawling ; while carefulness in even a slovenly penman produces somewhat of beauty, even if it will not result in elegance.

What really affects a handwriting more than any other circumstance is the necessity of the writer. Almost any one, by taking pains, could write a tolerably good hand, yet how few and how mea-

gre would be the productions of great minds, should they sit down determined to write in elegant penmanship ! And even in the work of an ordinary paragraphist, how much would it suffer in sense by reason of his impeding the thought in striving to make his chirography elegant ! Again, were he laboriously to copy "in a big round hand," after the example of the traditional Admiral in Pinafore, how much labor would be wasted in copying, which would better be used in original composition ! Paragraphists often have too little leisure to do this work, and hardly sufficient time to dictate slowly to an amanuensis—a copyist is out of the question : for if a copyist could read his MS., a compositor ought to be able to do so.

And this is all that can be said in the way of so-called argument. My own conclusion on the matter is, that compositors or type-setters should strive to become familiar with all sorts of MSS. and so endeavor to learn the sense of the writers from a hastily written word ; that they can read all kinds with tolerable ease, and falling into the mood of the author they interpret—so to speak, or translate the author to the reader. For what is type but a translation from manuscript ?

This ability is possessed by a good many compositors on papers, whose work consists of contributions from various writers : so that a manuscript hardly legible to a person unaccustomed to reading writing would be as clear as a printed page to their apprehension. The habit of looking at a word, rather than a letter, in deciphering an obstinate manuscript has often furnished a clew

to a matter which puzzles more than it need. We read print by looking at the form of the word, which we recognize—not by spelling out the letters.

But compositors can not be expected

to know everything, even how to read and spell by instinct. I wish they knew half as much as people think they know: and could know what I mean to say without my saying it. HENRY CLARK.

NOTES FROM A TEACHER'S DIARY.

(CONTINUED.)

Monday.—

WHEN I came in from school to night and was hurrying up to my room with an armfull of books, I heard my name called from the sitting-room. I left the books at the top stair and ran down to see what was wanted, presuming a letter awaited me; but, no, a very disagreeable charge came up instead. "Why didn't I let Kittie come up to my desk at recess as well as other girls?" "Why? I permit no one to come without first raising the hand and receiving a reply to that effect," was my answer.

"Well, I learn that you are very partial about this thing."

"Not in the least. If any one has occasion to feel jealous, certainly it should not be the dear children of *this* house who have more of my help than all the rest in school, because they have it out of school hours."

"I don't know when you help them I am sure," the mother went on, "now here's Kittie, she wants to stand first at the end of the term, but she can't unless she has more help from you, I can't help her, I never had much chance to learn; we lived two miles from school in my youth, and I only attended when I lived with my uncle a part of the year. You *must* help her more."

"It would be a great wrong to Kittie," said I, "to press her on faster than she will naturally go. She is studious and needs rest from nearly all thought of books out of school, and if we are not very careful she will break down and lose, rather than gain. As it is the extra help Kittie gets that has placed her in

the first class, she could not have entered it otherwise. She is but twelve years old, while a majority of the class are fourteen or fifteen. To expect her to equal them in scholarship is a great thing, but to excell them all is utterly impossible with all the help we can render. There is but little doubt that she will go up to the Grammar Department *honorably*, and that, were she my own daughter, would be enough at her age. But now that you have brought up a charge against me for partiality, I will say that Kittie has had a habit of running up to my desk at recess unbidden, while the others have followed my rule and raised the hand. I had a talk with her about it yesterday, and requested her not to do so any more, as others would do so too if she persisted in it, but she came up twice to-day just the same. I forgave the first offence, thinking she had forgotten, and reminded her not to do it again, but this afternoon she did the same thing and I sent her back."

"Well, what harm was it that she came!"

"What, my friend, if one hundred and forty children all came!"

"I think you are perfectly unreasonable," said the mother peevishly, "and as to helping her, why I don't think you have *hurt* yourself, and I think Kittie is smart enough to get along without your grudging help."

A new neighbor opened the door and invited me out to tea and to spend the evening. I gladly accepted and hastened my toilet to rid myself of the disagreeable face that could wear a mask and be bland enough now. The friend who in

vited me had just heard what was up through her servant who had heard a few words and had been chatting with ours at the gate, and well knowing my undesirable relation in the house thought to relieve me in this way. She called for me a half-hour afterward saying her husband had returned from his office tired out, and wanted me to entertain him, and that tea was all ready. "She will come back at ten o'clock," to my hostess she said, as she closed the door.

When I learned that she had done this for my comfort, I could scarcely refrain from weeping. Who else would have thought to act as promptly and efficiently? This may seem but a very trifling thing on paper, but one never writes the tones of a voice or the expression of angry faces so that they can be fully understood, and I was worn by the many cares and the earnest work of a large village school.

Tuesday.—

An old lady once told me that "if something unusual occurred on Monday it would do so all the week," so I am going to write down the events that followed Monday's error and see how they run. This morning the Superintendent called to invite me to his house to tea and to spend the night. I asked no questions why, and did not think he had been informed of a little trouble that I should feel proper to pass over without comment. But my friend's husband had met him early on the street and in answer as to "the news" he had told him what I should not have mentioned, and so he had turned his steps towards the school, remarking, "I shall see if our best teachers must be insulted."

Comment—This visit proved one of the most delightful ones of my experience. His beautiful home offered great inducements for one to spend the month he desired of me, but the long distance, a full mile, appalled me. Poor Kittie failed in school right along in spite of her pride and her father's help. They

saw at last what I had done and began to appreciate its full value.

Wednesday.—

As soon as I entered the schoolyard this morning, a group of lads accosted me, "Niles has got to leave school to help support his mother, she's feeble."—

"Yes, and Hansome has got a place in a store, he thinks." "I shall carry my books home to night," the boy said, "no doubt I shall get it. Mr. — is a great friend of father's, he knows what a splendid business man *father* is." "Do *you* expect to make a fine business man?" I asked. "O yes, I'm just like father, all *business, business*. I don't care for books one bit!" "One needs to cultivate great care and accuracy in numbers, and exactness in everything to be a successful merchant—I fear you are a little too careless, Ned."

"Oh, I shall get all over that, you see, when I get to work: it isn't like studying, you know."

"He that is faithful in present duties will be the more likely to be in future ones," I said, as I turned away.

Just as I was about to commence a recitation the monitor informed me that a gentleman wished to see me at the door. He was a stranger in search of a clerk, and asked if I could recommend him one from my school. He it was whom Hansome had depended upon for a place because he was his father's friend. I could not speak of the lad as I desired to do, for he had been a great trial to me in the lesson business, though he was strong, energetic and kind of heart. I concluded that to advance him now by words I *wished were true* would only help to ruin a bright boy, whose vanity and conceit needed wounding to make him a better scholar, and consequently the right kind of a business man.

The matter was talked over between us and though the merchant feared he might lose the father's friendship by the refusal to take the son, he would by no

means yield the point when the case was understood. And then I recalled the words about Niles, and said, "I think that I can give you a good boy. He is certainly an excellent pupil; one who is never late, always ready to recite when the bell strikes, perfect in deportment, neat, accurate in numbers, very observing and clearheaded. If you want a clerk to hear and obey, take Johnny Niles. I have only to catch his eye, if I need a blind closed, and to look up, and a noiseless step quickly shuts the sun out. If I drop my pencil upon the carpeted platform it is soon placed upon my desk. A multitude of little favors are received from his hand in the course of a week. He has no father, and they are very poor I am told. He has studied hard and as if he considered it his last chance." The gentleman said, "I'll take him; I was a fatherless boy once, and if he answers at all to your description I'll do well by him." Handing me his address he requested that the lad might be sent at once to his office. There were tears in the merchant's eyes as he turned away. What sad memories were awakened by Johnny's case I may never know beyond the fact, that, as he said, "life had gone hard at times with him when homeless."

I went in and spoke to Johnny a few low words; he gathered his books quietly together and stepped out with me into the hall where I gave the card and such advice as I deemed best. He threw his loving arms about my neck and kissed me as if I had been his mother, and showered his thanks upon me freely. I returned the caress and added a blessing from a full heart, and begged that he would ever remember that all our prosperity was from God and that He bestowed it often as a reward for faithfulness. "When I am a man and other poor boys want places I shall remember them *first*," he said, as he started with graceful step down the busy street.

L. R. De WOLF.

NOW THE FRUITS OF THEN.

Man must die and go to dust,
 Laurell'd hero's sabres rust,
 Palaces decay and fall.
 Kings and princes great and small
 Play their parts and exit make;
 So their graves their glories take,
 Monuments their vigils keep
 O'er their dread and dreamless sleep;
 Or unknown grave will contain
 Pulseless heart and lifeless brain—
 But their thoughts, their hopes, their fears,
 Animating all their years,
 Deeds of valor and of love,
 Flowing from a Life above,
 Down the corridors of time,
 Grateful cadences of rhyme.
 Thus the songs the Ages sing
 Come and with them ages bring.
 Thus the golden thread of thought,
 In one plastic web is wrought;
 Thus is now the fruit of then
 In the life and soul of men;
 Garnered in the mind, the art—
 And the present will impart
 To the ages yet to live
 All that then and now can give.

C. C. COLLINS.

THE BASIS OF INDUSTRIAL EQUALITY.
 —Seventy-five thousand women in New York city earn their livings by decent occupations apart from domestic service. This is a striking fact, and a close student of the situation has come to the conclusion that "woman can be kept innocent by making her independent of the necessity in every case of getting her living by the aid of the other sex." But what of the means of securing women this necessary freedom? An independent class must be a free and equal class.

Women are not free, nor are they recognized as equals. They will never be above the "necessity of having the aid of the other sex" until they are the equals of men in political rights. A disfranchised class can not be otherwise than dependent upon the class in power.



A POST-FOURTH OF JULY ORATION.

ON "Independence day," thousands of orators "orated" throughout the country upon the great and glorious results that have accrued to us from the Revolution of 1776, and the signing of the Declaration of Independence, which was its sign-manual. The chief of these results, is the illimitable national freedom we enjoy. And yet many of these orators and the audience to which they spoke are *not* free, and they will doubtless be surprised, when I denominate much of their talk as "gush" and "blarney."

Far be it from me to utter one unpatriotic thought or word, or to decry a custom which all true Americans delight to observe. I yield to no one in my love for this, my adopted home—yet I do wish to sincerely and earnestly urge both "orator" and "delighted listener," in future, to view this subject of liberty from the following, as well as all its other bearings.

Liberty is of four kinds: National, Personal, Social, Professional.

NATIONAL LIBERTY.

Of National liberty, little need be said. For over 100 years this theme has been dwelt upon yearly by thousands of America's most eloquent and gifted speakers. Yet, until the proclamation of Abraham Lincoln that emancipated all the slaves on these shores, it could not honestly

and truthfully be said that we were a free nation. Now, however, it is impossible, generally speaking, for a man who obeys the law, to be anything but free in the U. S. of America. Nationally, our freedom is perfect and absolute. The fatherhood of God and brotherhood of man, are two prime bases in the American constitution, and as far as National legislation can make it so, every man in this country is equal to every other man. He has the same rights—personal, political and national, that all others have. Hence, we stand upon a platform of perfect national freedom.

PERSONAL LIBERTY.

But when the question is examined from a personal standpoint, many men and alas! women also, are found to be slaves of the worst type; slaves that of all of those who are in bondage, are the most difficult to set free. They are tied down by personal habits that have long since gained almost a complete ascendancy over them.

Let me illustrate. A friend of mine has delivered an oration every fourth of July for a number of years, and yet he is bound hand and foot by the tobacco habit; he chews from morning to night, year in and out. Take his tobacco from him and he is wretched beyond measure. He has over and over again, tried to quit the habit, but the body is master of the

man, and he can not give up what he acknowledges to be a dirty, and injurious habit.

So with many smokers. They are in a similar bondage. Equally so are there thousands of wretched slaves to alcohol, morphine, opium and chloral. A short time ago I questioned a chemist in one of our largest summer watering places, and he informed me of a surprising number of painful cases, where women of high social position were slaves to their appetite, for morphine, opium and chloral. "Good women in other respects," said he, "will lie like troopers to obtain these pernicious drugs," so potent and powerful are they, when once they have gained the ascendancy. "The servant upset the bottle, and I must have more. You can't refuse me under such circumstances." Such pleas as this are common when the craving is unusually great.

Gambling also has its thousands of slaves, and in my official capacity as chaplain of a county gaol I have once had to visit a man sentenced to death under a charge of murder, committed to relieve his lost fortune. He was a slave to gambling. A murder and a lynching occurred in Austin, Nevada, some five years ago, where both victims were slaves to alcohol and gambling. Two other cases; one of attempted murder, the other of successful homicide occurred in my own county last year owing to this same sad slavery to gambling.

Other men are slaves to their sensual passions. Lust controls them. The spell of the harlot is over them, and although they loathe themselves and her; although they know that when they follow her, they go "as an ox goeth to the slaughter, or as a fool to the correction of the stocks," yet they "let their hearts decline to her ways," they "go astray in her paths."

Then there are those who are slaves to the inordinate cravings of a gluttonous appetite. They know that heaviness of body and mind, a dyspeptic and bilious

condition, are the results of an uncontrolled appetite, but they refuse to curb it. Knowing they ought not to eat certain foods, they allow the appetite to control the will, and by thus yielding become slaves to that most imperious of masters "the stomach."

And yet these very men, gamblers, murderers, lustful and gluttonous, have doubtless often stood among the fourth of July throngs celebrating the day which gave them "freedom;" then going out and proving the fact of its possession by giving themselves up body and soul to the first vice that cared to enslave them.

To all such as these I would say: master these evil propensities ere you boast of your freedom. Stand in the might of your intellectual manhood, and in the strength of God fully settle the question of your own personal freedom. Determine that no vice, no evil habit shall longer enslave you and then with greater truth will you be able to declare yourself a "free" citizen of this great and glorious republic.

SOCIAL LIBERTY.

By this I mean the liberty we possess as social beings, or, in other words, as members of organized society. We are privileged to visit our friends, to travel wherever we will, to take recreation and holidays, to eat, drink and sleep whenever we choose: we can assemble ourselves together in any number under ordinary circumstances for amusement, pleasure or instruction, and in all these things the government protects us. Still, many people are far from being socially free. Men dare not do right, often, for fear of what society will say. Society has its code of unwritten law, which few dare to violate, although in many cases it is wrong. Society *allows* a Christian lady to say to her servant, "Not at home," when an unwelcome or ill-timed visitor arrives. Society thus permits and require a *lie* to be uttered in its name. That person is not socially

free who feels bound to follow this custom.

Some society requires the wine to be placed upon the sideboard for visitors, and many temperance ladies and gentlemen obey this written law, although they do not believe in the use of the wine. Such persons are not socially free.

Men who do not smoke, and who are conscientiously opposed to smoking, are often expected to present cigars to those who do, and also to permit smoking in their own homes. If they yield I am compelled to the conclusion that they are not socially free.

Ladies are oftentimes bound down by foolish, and sometimes by immoral fashions of dress. If they dare not refuse to disobey these laws of fashion they are certainly not socially free.

Young couples marry. Society expects them, in many instances, to occupy a certain position. They obey the dictates of society, live and dress as they are expected to do, although they know, or ought to know, that such a course of conduct ultimately means social and financial ruin. Such couples are not socially free.

Religious society in many circles requires you to partake of an alcoholic wine at the table of our Lord. If you believe the use of this wine to be wrong, and yet yield to the dictates of society you are assuredly not socially free.

In all these things, where the conscience is opposed to their observance, obedience to society means social slavery—not social freedom, and the list of such servitudes might be largely increased. Let me, therefore, urge you, if you ever feel condemned by such yielding, to become a solecist and wilfully and determinately break those laws of society that your conscience can not approve. Be free socially, that is, do right even though all society should find fault with, condemn, and even ostracise you. It requires the *true* man and woman to stand firm for social

liberty, and only such can be socially free.

PROFESSIONAL LIBERTY.

There is a class of men who are linked together by professional ties. This class comprises ministers, editors or literary men, physicians, lawyers and the military.

The first of these, says Mr. Ingersoll in effect—are not allowed to be mentally free. They are told what they must believe and what they must not believe, and they are compelled to receive without question all that which is presented to them.

Now in no case is this statement true. All that the minister is taught must commend itself to his judgment or he need not believe it. There are no laws that *demand* that he shall believe anything. There is a requirement, however, and that is in effect as follows “So long as you remain in this church we expect you to preach what we as a church honestly and sincerely believe to be the true doctrine, and should you wish to preach other doctrines, you are at perfect liberty to do so, provided you sever your connection with our church. For we can not allow you to remain under our name, sanctioned and authorized by us, when you are preaching and teaching ~~that~~ which we believe to be erroneous and injurious.”

Now this is a perfectly natural restriction that any honest and free man can consistently subscribe his name to. At the same time there is a professional servitude and bondage that the minister should be free from. Some ministers do not wish to wear the usual clerical hat, or white tie, or this or that cut of coat and vest, or they would prefer a colored suit of clothes to the conventional black, but custom will not willingly allow them freedom in these matters. Now those men who dare not brave such custom are not professionally free.

In some societies a minister is expected to preach in that peculiar tone, com-

monly spoken of as the "holy drawl." He knows that such a tone is vocally pernicious, and contrary to the dictates of common sense in speech, yet such is the pressure of professional prejudice that he dare not assert his freedom. He is a professional slave, until at last outraged nature demands rest, and laid by—with "minister's sore throat,"—he wishes he had dared to assert his vocal liberty.

Now in all these things there is no principle at stake, or I would not thus speak of them. There is no question of morality or of religion involved in a white tie, or in any particular tone of voice.

Hence I say to my ministerial friends, "Be men! and assert your freedom." Let "outraged professional taste," be outraged until it awakes to a sense of its own folly.

In the medical world there are also unwritten laws which make many physicians and surgeons professional slaves. Take the question of Phrenology. It is deemed unprofessional to believe in this science, because no scalpel or microscope has revealed physical divisions in the brain structure corresponding to the mental faculties which we assert control certain localities of that organ. Many medical men have themselves confessed to me that the arguments in favor of Phrenology were incontrovertible, yet they dared not publicly avow their belief in it. Such are professional slaves.

So with describing alcoholic liquors. They know that there are millions of gallons of impure, adulterated wines and spirits upon the market, and also, that even were all these drinks "pure,"—using the term to distinguish from the adulterated—the quantity of alcohol contained therein varies so much as to make a prescription absolutely dangerous because of this uncertainty. The alcohol is that for which these drinks are given; then why not prescribe the pure, unadulterated, genuine spirit, instead of these often impure and uncertain beverages. But no! It is unpro-

fessional—thank God, however, that time is passing away—to be in any way in accord with those "fanatical teetotalers." The custom of "the profession," is to prescribe the wines and spirits of commerce, and although *all* physicians know, or ought to know, the *facts* that I have stated, they are slaves to professional prejudice and custom, from which many of them have not manliness enough to break free.

Editors and lawyers are also accused of doing so many professional things against their consciences that I dare not begin to speak of them, for fear of an unwieldy and tremendous list. They, however, can speak for themselves. They have the public ear, and can thus defend and argue their own case. I would, however, like to urge them, if what "they say" be at all true, to assert their professional freedom, and dare to be free regardless of charges of "mugwumpism," "fence straddling" or "blatherskiting."

In some regiments of the army it is unprofessional for an officer—or a soldier either—to be sober or religious, and many a man under such pressure has violated his conscience in order that he might not appear unprofessional.

Indeed there are but few men and women—if any at all—who are wholly free. There can be no freedom in its highest and truest sense where any sin dominates the mind or soul. Then, conscious of our own weakness, let us appeal to God for the strength to overcome that within us that is wrong, and when society or profession or anything else opposes us on account of our standing out for a noble principle, let us remember that one greater than "the bird of liberty," hovers around us; the messengers of the great and holy God are witnessing our struggle; the spirit of just men made perfect are cheering us; the angels of our own loved ones are guiding us; and our God himself in the midst of the direst conflict gives new life and vigor to our souls by those gracious

and most encouraging words—"Be strong and of good courage. Have not I commanded thee?" "I will never fail thee nor forsake thee." "They that trust in the Lord shall *never* be confounded."

GEO. H. JAMES.

PALPITATION OF THE HEART.

ONE of the common symptoms of a disordered system, and one that usually excites apprehension of serious disease, is palpitation of the heart. In the vast majority of cases it is indicative of functional disorder in the organs of digestion and assimilation. Dyspepsia, therefore, may be said to be a prime factor in its production, although the immediate cause may be diagnosed as nervous—the sympathetic system being that chiefly involved. Palpitation is not easily defined, because its sensations are variable in different persons, from a mere uneasiness to a powerful irregular action that rapidly exhausts one. One calls it a fluttering in the chest; another an irregular and rapid beating of the heart; another a strange thrilling that seems to interfere with the breathing and makes him anxious and fearful. The term is commonly used in relation to the effects of sudden emotion—fear or joy—but then the heart's action may be but the natural response to mental conditions that come and go with the ordinary experiences of life. These are but the rapid movement of the heart induced by reflex influences that are usually derived from external impressions, the nerve vibrations being carried through the senses to the organic centres supplying the heart, and transmitted by them to the pulsating organ itself.

The palpitation of disease seems to be produced also by an excitation of these centres, either by an undue degree of excitability in them, or from some excess of vibration, direct or reflex, conveyed to them.

It is well-ascertained that there is no necessity for any organic disease in the heart structure itself in order that the phenomena of palpitation may be devel-

oped. The palpitating heart may be a diseased heart, but it need not be so; and, on the other hand, because the heart is organically diseased there is no reason why it should be affected with palpitation more than if it were healthy. It may be observed, generally, that the subjects of palpitation are, as a rule, of the nervous or mental temperament, are "impressionable," excitable persons, and from childhood have exhibited a ready susceptibility to emotional disturbances.

It is wise, however, for those who are annoyed often with an undue activity of the heart to take decided steps toward knowing the cause of the trouble, and this should be done by consulting a physician of experience, especially one who has studied diseases of the chest and is thoroughly acquainted with the instruments used in the diagnosis of heart and lung diseases. I have little confidence in the medical man who disparages the use of the stethoscope, the pleximeter or the sphygmograph, alleging that his fingers and ears are good enough instruments, and that he has no occasion to resort to such inventions. The most skillful and experienced physician will confirm me when I say that mere questioning a patient and a brief application of the ear to the chest wall will not determine whether the heart is diseased organically or there is merely a functional derangement.

In the course of his remarks on the diagnosis of heart diseases the late Prof. Flint says: "The occurrence of the disturbance in paroxysms, the action at other times being regular, the paroxysms occurring at night rather than in the daytime, and frequently not being occasioned by obvious cause, such as muscular exertion or mental excitement; the

ability of the patient to take active exercise without palpitation, or difficulty of breathing, when not suffering from the disorder, and the intensity of mental anxiety and apprehension are points which render it probable that the difficulty is purely functional. These points, however, are not conclusive. A positive diagnosis is to be based on the exclusion of lesions of structure by the absence of the physical signs of the latter. If, in a careful examination of the chest, the heart be not found to be enlarged; if there be no murmur present, or if an existing murmur be inorganic and the heart sounds be normal the affection may be confidently pronounced functional. Without the negative proof afforded by physical exploration the mind of the practitioner must be in doubt as to the diagnosis."

Some persons have a natural disposition to palpitation. I have said that nervous, excitable persons are those more subject to such disturbance, but there are people with the bilious or motive temperament who show a marked cardiac irritability. It is remarkable how small a matter will excite a paroxysm in the latter part of the day, and particularly at night. A sudden noise while they are lying in bed awake, or if they be aroused when asleep, will produce severe throbbings. Indigestion contributes greatly to palpitation; over-eating of meat, high-seasonings, wine or other alcoholic drinks, indulgence in strong tea or coffee, tobacco using, sexual excesses, too much exercise soon after a hearty meal, these all tend to bring on the irregular action and the sleepless disquiet of this troublesome malady.

Some amusements even lead to it, as for instance, exciting games of cards or other competitive sport. Reading or study late in the night, and reading or speaking aloud late are especially mischievous. The worst mischief of all is the practice of carrying to bed the anxieties and annoyances of the labors of the

day. Probably more than half the cases of palpitation of the heart occur from this one mistaken and foolish practice. In young women social worries and excitements have much to do with causing the trouble; chlorosis or hysteria, is often found a prime agent.

Treatment.—Well, the advice to those who suffer from this form of heart disorder must relate to the causes that have been briefly mentioned. In the beginning attention must be given to the removal of all possible causes of excitement, worry and exhaustion, mental or physical. The daily habits must be corrected in whatever is important and unhygienic. Early hours for bed are requisite, and a continuance in bed in the recumbent position for eight hours out of the twenty-four at the least. During the day moderate out-door exercise with avoidance of rapidity and of over-action in climbing steep ascents, should be observed.

To this moderate open-air exercise should be added daily bathing in water, first sufficiently warm not to create a shock, or to leave a sense of chilliness of the skin. Brisk friction with the hands and use of a rough towel or hair glove, may follow the bath with advantage. Turkish or Roman baths are not good for persons subject to severe palpitations, because of the effect of their high temperature upon the general circulation.

Meals should be taken at regular hours; at no time should a heavy meal be indulged in, and the simpler the food the better. Light and easily digested articles in moderate quantities, and fresh fruits are always good. Tea, coffee and alcohol in every shape are very unfavorable in cases of palpitation. The quantity of fluid taken should be limited in amount.

Readings, amusements and pastimes which keenly affect the emotional faculties, are to be avoided as much as any more vigorous forms of physical excitement. Whatever mental food keeps the mind awake, whatever makes the suf-

ferer hold his breath with wonder or anxiety, is bad for him. Exciting novels, plays, exercises, games of chance, should be put aside. But plain, steady, useful, mental work is useful; it employs the

mind in a calm, purposeful manner and prevents it from brooding over bodily incapacity, from indulging in nameless fears, and so becomes an element of cure.

H. S. D.

HEALTH PAPERS.—NO. 6.

“WELL!!” Well, what now?—“A trio of exclamation points gives but a meagre expression to our surprise that any one should think of treating the sick without remedies.” *Without remedies?* A double trio is scarcely sufficient to show our astonishment that any intelligent being should be so devoted to drugs, as to give place for a moment to the thought that they alone are remedies and all things else are valueless as curatives. It is presuming a great deal to claim that drugs are in any proper sense curatives at all. It is still worse to assume that they, and they alone, to the exclusion of all things else, are so. What is a remedy? What is a curative? It is “that which cures disease—any application which puts an end to disease and restores health.” Curatives do not act upon dead or disorganized matter. Really, they do not act upon matter at all except as chemical reagents. They are valuable only as vital force can use them for aids in its specific work. Food does not nourish the tissues of a dead body, or of a living one in which the vitality of the organs of nutrition is, from any cause, suspended. If the digestive and assimilative processes are inoperative, it is not for the want of tonics or stomachics. If the liver is torpid it is not from its need of cholagogues. Constipation is no indication that aperients or cathartics are in demand. A malarial fever does not point to the absence of antiperiodics as its cause, pleurisy and pneumonia never justify the conclusion that cherry pectoral or cough lozenges, have not met with their merited patronage. Irritable nerves are often caused by the use,

but never by the want of opium and kindred narcotics. Not one of the diseases enumerated by the nosologists of any age, or of any school of medicine, is or ever can be traced to the want of drugs as its cause. Is any one starving? The symptoms are to be found in craving for food, accompanied by shrunken tissues, unsteady nerves and increasing debility. The cure is not found at the druggists, but at the grocers.

The dryness of the mucous surfaces, the inspissated secretions, the raging thirst, the delirium of fever following privation of water, do not call for febrifuges but for drink. These are simple illustrations. Every one sees their force at a single glance.

But the same principle applies equally to all disturbances in the economy of life. If a dozen, or a score of causes are operative, the case will of necessity, be more complicated and correspondingly more difficult. Each distinct cause is attended by symptoms peculiar to it. When analyzed, the most difficult diagnosis resolves itself into a coterie of simple ones.

Let us suppose a case. Our subject shall be of sound constitution and good health. Such a person as no sane man would say needs medication. Let us follow and closely observe the decline, and see when, if ever, the resources of nature cease to be reliable and those of art become a necessity.

1. A good appetite, over-indulged because it is good, gradually brings on impaired digestion and assimilation with morbid cravings, not for wholesome food only, but also for things unwholesome and injurious.

2. Congestion or inflammation of the

mucous surfaces, in patches at first, but widely diffused afterward, gives rise to irritation of the nerves that control all the nutritive processes.

3. Weight and pain in the epigastrium, acidity and nausea, with longings, or extreme disgust, for certain kinds of food or drink; functional disorder of the liver, kidneys, bowels and skin; confusion of thought, forgetfulness and melancholy, groundless suspicions, bad dreams and uneasy sleep, cold and clammy hands and feet, nervous or sick headaches and like troubles of variable intensity, make life wretched and fill the mind with forebodings of things still more dreadful.

4. Vital resistance is enfeebled and it now affords little security against the encroachments of disease. A foul and neglected cellar, a contaminated water supply, an undrained marsh or a disinfected cesspool or slaughter pen, may, aided by atmospheric changes, give rise to typhoid or malarial fever complicated with pneumonia, or with grave affections of the liver, the kidneys or other organs.

5. Almost to the bottom! Feeble, sensitive and miserable, watching for new changes and new developments which

do not long delay their coming, hoping for better, but anticipating worse things; realizing all the evil and little of the good that day-dreams and night-dreams cause to flit across the dismal pathway as the last sands of life run out, we pronounce our sad farewell and the sufferer is gone. But our lesson is not yet fully learned. We have watched a steady decline. Each step has been taken as the result of a cause or a combination of causes. In most, if not in all cases, these causes might, and ought to have been avoided. This being done what more would have been required, if every divergence from the standard of healthful living, is followed by a decline in health? Surely, each faithful observance would, to the extent of its influence over vital action, secure us from such decline.

How many causes must be in operation and how sick must any one be before natural resources are to be considered unreliable and the necessity for artificial ones becomes apparent? If one, two or ten disturbing influences are operative, then, one, two or ten should be detected and removed. But whether removed or not, the introduction of additional ones seems strangely at variance with nature's indications. J. S. GALLOWAY, M. D.

SLEEPLESSNESS.

A WRITER in *The Christian Advocate*, reviews the treatment advised for *Insomnia* or sleeplessness, by several authorities, and concludes that hygienic methods are best. He says:

The very common error of regarding the sleeplessness as a disease to be overcome, is apparently entertained by the inquirer. We are reminded at once of the vigorous protest against this idea of Dr. Page. "To attack insomnia as a disease, instead of a symptom, is sure to result in discomfiture in the great majority of cases, and is in every instance unsound in principle. The wakefulness, of which so many complain, and which, in

some cases, is of the most distressing painful character, is as truly normal, considering the present physical state of the sufferer's brain, as is pain following a cut."

The question then, for one who is sleepless, to ask is not so much, how can I get sleep, but why *don't* I sleep? My sleeplessness shows that there is something wrong either with my habits or in my bodily condition. What is this? To quote Dr. Page again: "Thinking all the while that it is sleep only that he needs, his sleeplessness distresses him, causes him to be more and more alarmed and consequently has the effect to post-

pone the oblivion so devoutly prayed for, but so little earned. To *deserve* sleep is to have it. Let him go to bed at about the same hour every night, if possible, or at any rate, when he does lie down to sleep it should be after a quiet hour or half hour devoted to peaceful and thought-steadying occupations, never exciting mental exercise, whether amusing or instructive; and when he draws the blankets around him, let it be with a sublime indifference, as to whether he shall or shall not go to sleep promptly. An *endeavor* to go to sleep is a mistake."

Not long since the Rev. Dr. Ormiston of New York City published in *The Homiletical Review* an account of a life-long struggle on his part against sleeplessness. He was evidently born with a peculiar cerebral organization, that craved but little sleep. This was greatly aggravated, however, by the most flagrant abuse of himself in the way of overwork. According to his statement, during his life he had tried every imaginable form of narcotic and hygienic device for his relief, but without finding any that were desirable for more than transient use. He sums up the whole of his experience in the following brief recommendations in efforts to overcome wakefulness: "Early retiring and rising; the performance of all hard mental work in the early part of the day; the avoidance of all excitement late in the evening, and the practice of taking exercise of some kind in the open air, in all weathers, unless very stormy, and, whenever practicable; this exercise to consist of a ride on horseback of not less than two hours every morning."

Another phase of the circumstances that favor sleep is dwelt upon forcibly by Dr. Mortimer Granville, namely, the power of habit. He says: "The periodic recurrence of sleep is normally a matter of habit; and, therefore, the act of 'going to sleep,' ought also to be a habit. The cultivation of a habit of going to sleep in a particular way, at a particular

time, will do more to procure regular and healthy sleep than any other artifice. It is not very important what a person does with the intention of going to sleep; but he should do precisely the same thing in the same way, at the same time, and under as nearly as possible the same conditions, night after night, for a considerable period, say, three or four weeks at least. The result will amply reward the effort."

A few hygienic suggestions may be added to these general principles. The sleeping apartment should be well ventilated, and excess of heat and cold should be avoided. Bedrooms should be warmed in winter and cooled in summer, and feather beds, and heavy spreads and comforters should be eschewed. If the person has been using the mind actively during the day or evening, a long and brisk walk before retiring, so as to create muscular fatigue, will promote subsequent sleep.

A meal of good, easily digested food, just before going to bed, will in many cases, be a great assistance in overcoming a tendency to wakefulness. The withdrawal of blood from the brain to satisfy the demands of the digestive apparatus in the work of digestion, produces brain conditions that favor sleep.

IMPURITY IN ICE.

The idea is widely prevalent that ice is free from impurities; although the pond from which it may be taken may be notoriously dirty, yet that does not make the ice impure, because, "they say," in freezing the impurities are rejected, and the ice comes out clean and fit for use. We have heard people of good judgment generally argue in this way. Now it is soon established, by a little examination into the facts, that its conversion into ice does not purify impure water. In a report made by the State Board of Health, of New York, on the purity of ice from Onondaga Lake, this is conclusively shown. Into this lake is

discharged the sewage of the City of Syracuse, amounting to five million gallons a day. At the time the inspection of this lake was made there was a margin from one to four feet wide of black, putrefying organic matter along the shores. The analyses of the ice from this lake showed that it contained probably from 10 to 12 per cent of the sewage impurities dissolved in the same quantity of unfrozen water of the lake. This ice also showed the presence of bacteria in great abundance, retarded somewhat in their growth by the ice, but not destroyed by it. It is, perhaps, needless to say that this ice was pronounced totally unfit for any purpose where it is liable to come in contact with food or drink. The report, valuable for what has already been mentioned, is still more so by reason of the numerous references to instances in which the impure ice has been the cause of dysentery and other diseases. The earliest of these was that at Rye Beach, N. H., reported by Dr. A. H. Nichols, of Boston, in 1875, in which there broke out among the guests of a large hotel at that place an epidemic of gastro-enteritis, caused by impure ice from a filthy pond. Another instance of sickness caused by impure ice, referred to in the report, is that of an epidemic of dysentery which occurred in 1879 at Washington, Conn., investigated by Dr. Brown, of that place, and by Dr. Raymond, of Brooklyn. The ice had been gathered from a pond which had been used as a wallowing ground by the pigs. Other instances are quoted of the injurious effects of impure ice upon the public health, and sufficient evidence given to show that, in process of freezing water does not purify itself. The report, taken as a whole, is a very valuable contribution to this subject, and a complete refutation of the old idea that all ice must of necessity be pure.

Our advice to people who must have the water they drink quite cold is that they do not allow ice to be put into the water, but to be kept entirely separate

from it in a refrigerator or other cooling apparatus.

The way in which ice is collected and handled, from the water to the consumer's table, is not the cleanest in the world, and it is likely to carry the germs of disease in warm weather, because of its exposure to contamination. D.

ALCOHOL IN EXPOSURE TO COLD.—Where men are subject to great and prolonged exposure to cold, experience has taught them the danger of taking spirits while the exposure continues. My friend Dr. Fayer told me that when crawling through the wet heather in pursuit of deer on a cold day he offered the keeper who accompanied him a pull from his flask. The old man declined, saying, "No, thank you, it is too cold." The lumberers in Canada who are engaged in felling timber in the pine forests, living there all winter, sleeping in holes dug in the snow and lying on spruce branches covered with buffalo robes, allow no spirits in their camp, and destroy any that may be found there. The experience of Arctic travelers on this subject is nearly unanimous; and I owe to my friend Dr. Milner Fothergill an anecdote which illustrates it in a very striking way. A party of Americans crossing the Sierra Nevada encamped at a spot above the snow line, and in an exposed situation. Some of them took a good deal of spirits before going to sleep, and they lay down warm and happy; some took a moderate quantity, and they lay down somewhat but not very cold; others took none at all, and they lay down very cold and miserable. Next morning, however, those who had taken no spirits got up feeling quite well, those who had taken a little got up feeling cold and wretched, and those who had taken a good deal did not get up at all; they had perished from cold during the night. Those who took no alcohol kept their heart warm at the expense of their skin, and they remained well; those who took too much warmed their skin at the expense of their heart, and they died.

LAUDER BRUNTON.

NOTES IN SCIENCE AND INDUSTRY.

Fire and Waterproof Paper.—

L'Industrie Moderne gives Mr. Ladewig's process of manufacturing from asbestos fiber a pulp and a paper that resist the action of fire and water, that absorb no moisture, and the former of which (the pulp) may be used as a stuffing and for the joints of engines. The process of manufacture consists in mixing about twenty-five per cent. of asbestos fiber with about from twenty-five to thirty-five per cent. of powdered sulphate of alumina. This mixture is moistened with an aqueous solution of chloride of zinc. The mixture is washed with water and then treated with a solution composed of one part of resin soap and eight or ten parts of water mixed with an equal bulk of sulphate of alumina, which should be as pure as possible. The mixture thus obtained should have a slightly pulpy consistency. Finally, there is added to it thirty-five per cent. of powdered asbestos and five to eight per cent. of white barytes. This pulp is treated with water in an ordinary paper machine and worked just like paper pulp. In order to manufacture from it a solid cardboard, proof against fire and water, and capable of serving as a roofing material for light structures, sheets of common cardboard, tarred or otherwise prepared, are covered with the pulp. The application is made in a paper machine, the pulp being allowed to flow over the cardboard.

How to Determine the Quality of Silk.—

Take ten fibres of the filling in any silk, and if on breaking they show a feathery, dry and lack-lustre condition, discolored the fingers in handling, you may at once be sure of the presence of dye and artificial weighting. Or take a small portion of the fibers between the thumb and forefinger, and roll them over and over very gently, and you will soon detect the gum, mineral, soap and other ingredients of the one, and the absence of them in the other. A simple but effective test of purity is to burn a small quantity of fibers. Pure silk will instantly crisp, leaving only a pure charcoal; heavily-dyed silk will smoulder, leaving a yellow, greasy ash. If, on the contrary, you can

not break the ten strands, and they are of a natural luster and brilliancy, and fail to discolor the fingers at the point of contract, you may be well assured that you have a pure silk that is honest in its make and durable in its wear.

A Simple Scientific Trick Caught Him.—

In a large factory, one of the workmen carelessly allowed his hammer to slip from his hand. It flew half way across the room, and struck a fellow workman in his left eye. The man averred that his eye was blinded by the blow, although a careful examination failed to reveal an injury, there being not a scratch visible. He brought suits in the courts for compensation for the loss of half of his eyesight, and refused all offers of compromise. The day of the trial arrived, and in open court, an eminent oculist, retained by the defense, examined the alleged injured member, and gave as his opinion that it was as good as the right eye, and proved it. Knowing that the colors green and red combined make black, he prepared a black card on which a few words were written with green ink. Then the plaintiff was ordered to put on a pair of spectacles with two different glasses, the one for the right eye being red and the one for the left eye consisting of ordinary glass. Then the card was handed him and he was ordered to read the writing on it. This he did without hesitation, and the cheat was at once exposed. The sound right eye, fitted with the red glass, was unable to distinguish the green writing on the black surface of the card, while the left eye, which he pretended was sightless, was the one with which the reading had to be done.

The Sugar and Molasses Trade.

—The Bureau of Statistics has issued a quarterly report, which contains tables in regard to sugar and molasses, showing the imports and exports of these articles since 1789, their productions in the United States and foreign countries for a series of years, present tariff rates in leading commercial countries, and the export duties imposed by various countries on sugar. The value of

imports of sugar has ranged from 4.18 per cent. of value of dutiable imports in 1825 to 19 per cent. of such imports in 1875, and the duty collected thereon, has fluctuated from 4.16 per cent., of all customs duties on dutiable merchandise in 1625, to 28.6 per cent. 1885. A table is given, showing the leading sources of our customs revenue in the order of magnitude for a series of years. Sugar and molasses comprise our leading source of revenue, being 27 per cent. of the total collected in 1886, manufacturers of wool standing next at 14 per cent. The highest annual average of the specific rate of duty collected on sugar, was in 1828, when it amounted to 38 cents per pound, and the lowest in 1861 at $\frac{3}{4}$ cent per pound. The highest annual average of the foreign cost of sugar per pound, was in 1836, when it was 6.17 cents per pound, and the lowest in 1885, when it was 27 per pound. The foreign prices for sugar have been tending downward since 1881, largely caused by the world's increased production. Interesting data are given in regard to the sugar product in this and other countries, and of the origin and growth of the industry in Louisiana. The latter had its most prosperous period just prior to the civil war, since when it has not fully recovered. During the period just prior to the war, we produced about one-fourth of the sugar consumed in this country. During the last calendar year, however we produced only one-tenth. The statement of the estimated consumption of sugar per capita for a number of years shows: Great Britain, 74.1 pounds; United States, 53.3; Switzerland, 31.3; France, 24.5, and Germany, 17 pounds.

A Point for Fence Makers.—The problem, says a scientific writer, has interested many why two pieces of wood, sawn from the same section of tree, should possess very varied characteristics when used in different positions, as, for example, a gate post being found to decay much faster if the butt end of the tree is uppermost than would be the case if the top were placed in this position, the reason being that the moisture of the atmosphere will permeate the pores of the wood much more rapidly the way the tree grew than it would in the opposite direction. Microscopical examination proves

that the pores invite the ascent of the moisture, while they repel its descent. The familiar case of a wooden bucket is in point—that is, some of the staves appear to be entirely saturated, while others are apparently quite dry. This also arises from the same cause, viz., the dry staves are in the position in which the tree grew, while the saturated ones are reversed.

To Clean Engravings.—Put the engraving on a clean board and cover it with a thin layer of common salt, finely pulverized, then squeeze lemon-juice upon the salt until a considerable portion of it is dissolved. After every part of the picture has been subjected to this treatment, elevate one end of the board so that it will form an angle of about forty-five degrees with the horizon. From a tea-kettle or other suitable vessel pour on the engraving boiling water until the salt and lemon-juice are entirely washed off. The engraving will then be perfectly clean and free from stain. It must be dried on the board or on some smooth surface gradually, not by the fire or sun.

Immerse the print for an hour or so (or longer if necessary) in a lye made by adding to the strongest muriatic acid its own weight in water, and to three parts of this mixture adding one of red oxide of manganese. Indian ink stains should in the first instance be assisted out with hot water, and pencil marks should be taken out with india-rubber very carefully. If the print has been mounted the paste on the back should be removed with warm water.

Another recipe is: Lay the engraving down on a smooth board, with a clean sheet of paper underneath, and with a clean sponge and water wet the picture on both sides, and then saturate it well with a soft sponge with the following mixture: a quarter of a pound chloride of lime, two ounces oxalic acid and one quart of soft water, and apply.

Varnish for Iron.—To make a good black varnish for ironwork take 8 pounds of asphaltum and fuse it in an iron kettle, then add 2 gallons of boiled linseed oil, 1 pound of litharge, half pound of sulphate of zinc (add these slowly or it will boil over), and boil them for about three hours. Then add a pound and a half of dark gum amber and

boil for two hours longer, or until the mass will become quite thick when cool. After this it should be thinned with turpentine to the proper consistency.

Strange Facts About the Congo.

—At its mouth the Congo River is of enormous depth, but only one hundred miles or so above Stanley Pool, Captain Braconnier said that “steam launches drawing barely two and three feet of water have to be dragged along by our men.” H. H. Johnston mentions the same facts in his description of the Congo. “Our boat is constantly running aground on sand-banks” he wrote. “It has extraordinary effect to see men walking half way over a great branch of a river, with water only up to their ankles, tracing the course of some sand-bank.” Stanley, Johnston, and others attributed the remarkable shallowness of the river to great breadth in this part of its course; but none of them knew how wide the river really was above the Kassai River. We now have some new light on this question, which is a very interesting one, because the Congo is next to the greatest river in the world, and new discoveries in regard to it are apt to be on a large scale. Captain Rouvier has been surveying this part of the river, and he finds that for a distance of about fifty miles the river is much wider than was supposed. Its width, in fact, is from fifteen to twenty miles, a circumstance which has not been discovered before on account of the many long islands, some of which have always been taken for the shore of the river. It follows, therefore, that there is an expanse in the Upper Congo similar to and very much larger than Stanley Pool. Steamboats have passed each other in this enlargement of the river without knowing of each other's proximity. It is easy to understand, therefore, how it happens that the Congo is in this place very shallow, while in narrow portions of the lower river no plummet line has ever yet touched bottom. Navigation in this part of the Congo would be almost impossible were it not that here and there soundings are revealing channels deep and wide enough for all the requirements of steamboat traffic.

An Electric Headlight. — The *Master Mechanic*, in connection with a description of an electric headlight used on

Lake Shore & Michigan Southern engine No. 411, and a view, reproduced from a photograph taken at night, showing its effect, says: It will be seen that 23 telegraph poles are visible, but under more favorable conditions 45 poles have been counted, which is equal to a distance of about one and a half miles. A newspaper has been read by the light four miles away, and the time of night has been seen on a watch face nine miles distant. The reflection of the light in the clouds has been noticed twelve miles away. The headlight is the invention of Mr. Howard L. Pyle, and has been in operation between Cleveland and Erie nearly a year, giving entire satisfaction. In snow-storms it is noticed that the snow and sleet melt the instant they touch the glass, which is kept warm by the light. The locomotive runners say that targets, switch-lights, and semaphores can be distinctly seen, and the colors are as readily discernible as by daylight. A man can be seen three-fourths of a mile away. The illumination on the track for a mile ahead is so noticeable that it gives good warning to wayfarers of the approach of the train, thus in a measure obviating the necessity of using the bell or whistle. Mr. Pyle is said to have overcome the various obstacles heretofore encountered in experiments of this kind. He uses for motive power a Bailey rotary engine.

Temperament in Cattle.—In cattle as in horses and other animals, every variation of temperament appears, and in no other class of animals is it so distinct or shows such a variety of characteristics making it a study of practical importance to the farmer and a pleasing study to the naturalist.

One half of the average farm paper is spent in consideration of stock embracing the different breeds, their characteristics and their food, care and breeding. A little study of human temperament, applied in connection with the study of animal temperament would greatly simplify and practicalize the subject.

In commencing the study it will be observed that the milk and butter breeds of cattle, have the mental temperament that the beef breeds have the vital temperament and what are termed hardy or ranch cattle have the motive temperament, and in all

breeds temperament may be traced to climatic action, modified by food, care and education.

In the mental temperament great variation occurs in the amount and quality of the milk given by different cows, and this variation conforms to the variations of the mental temperament. Cattle with the mental-motive temperament, such as Jerseys, do not give a large quantity of milk, but it is very rich, giving them the leading place as a dairy breed where butter rather than milk is desired. The following is taken from a size stock synopsis in the *Farmers Review*. "Jerseys sometimes called Alderneys, are a small and comparatively delicate breed, but celebrated for yielding milk very rich in cream and of a deep yellow tint. They are fawn or silver grey color, with sleek short hair, deerlike heads and slender frames. Natives of the channel isles, but now largely bred on this side of the Atlantic, where they have become famous."

The mental-vital temperaments produce less quantities of milk, but it has not the quality of the mental-motive yet their combined qualities for butter and beef give them great value where (general purposes) cow is desired for, probably as a breed, the white and black Holstein or Dutch cattle are the nearest representatives of this. The dairy papers of the country have for some time been having spirited discussions as to whether a cow can be valuable for both dairy and beef, as what is called the dairy form in cattle is more or less wedge shape with thin sharp shoulders and a high back bone, while the beef form is as square as possible. A cow may not be perfect in both forms, yet she may be excellent in both.

It has been found that the feed of dairy cattle to obtain the best results must consist of oats, bran and other brain and nerve producing foods and they must have a careful education, for like the thoroughbred race-horse they are made or spoiled in the handling. They are not considered hardy cattle.

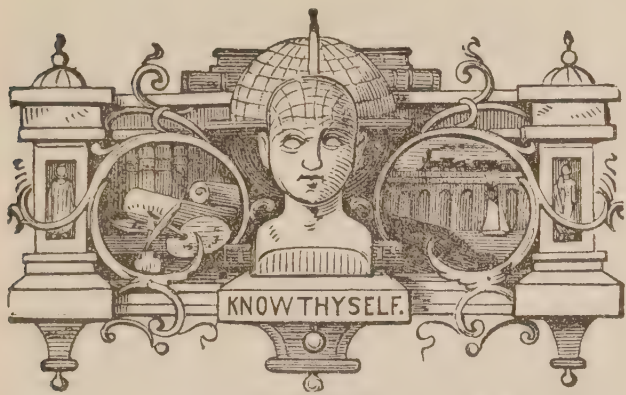
In the vital temperament cattle show their beef qualities. They are large with a small bony frame in proportion to their size, and are smooth, plump and meaty. To the lovers of beef it is a pleasure to see this class of animals as they appear at the stock fairs.

The nearest representatives are the Aberdeen-Angus, a black hornless breed of cattle, but usually a secondary temperament appears making a vital-mental or vital-motive temperament. In the first may be classed the shorthorns, the most popular and widest disseminated breed in the west. They are colored red, white and roan, never black, and have small neat horns not tipped with black. They are fair milkers but are best for beef. The Herefords have the vital-motive temperament. They are a red and white cattle with medium to large-sized horns, are very hardy and in great demand for western ranch purposes.

In the motive temperament we find only one quality, hardiness. They have a bony frame without meat, and very large horns. It would seem that cattle good for neither beef or butter would be of little use yet their great hardiness their power to gain a living where other cattle would starve give them a use on the ranch, and in the newly settled western states where food and shelter are of the ruder kinds. There are both the sanguine and bilious forms, the latter showing more hardiness than the former. The Texan with his small body, all bones and horns, has the bilious temperament, and makes a laughing-stock wherever seen. As a general rule the size of the horns in proportions to the size of the body indicates the amount of motive temperament.

GEORGE H. GALLUP.

TREATMENT OF RINGBONE.—The medical adviser of the *Prairie Farmer* says of a case: "The animal should be kept in a comfortable stall with earthen floor, and the diseased limb should be continuously bathed for a day or two, with cold water. Standing in shallow, running water, under shade from the sun, would be preferable. Then the hairs covering the enlargement should be clipped short, a blister applied, and the horse tied, so as not to be able to reach the part with the mouth. The day after applying the blister, and once daily during the ten days, apply a coat of pure lard, without washing the place. It may be necessary to repeat the blistering a few times, with about three weeks between each blistering; but between each blistering, the animal may be given liberty on pasturage.



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H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,

SEPTEMBER, 1887.

PHYSIOGNOMY AND PHRENOLOGY.

In that excellent and practical little treatise "Landmarks, Medical and Surgical," which an English surgeon published a few years ago, it is said that physiognomy has a sound base in physiology, which is lacking in Phrenology, and yet Dr. Holden tells us in another place that the cranium "certainly indicates the dimensions of the great cerebral masses," and in another a few pages removed from that, that "a person fond of observing can not fail to have arrived at the conclusion that a man's daily calling moulds his features. Place a soldier, a sailor, a compositor and a clergyman side by side, and who will not immediately detect a marked difference in their physiognomies?"

This author does not say it in so many words, but it may be inferred that he believes that the brain is the instrument of the mind, and from that thinking center proceeds the impulses that affect the tissues of the features. "The habitual recurrence of good or evil thoughts, the indulgence in particular modes of life, call into play correspond-

ing sets of muscles, which by producing folds and wrinkles give a permanent cast to the features and speak a language which all can understand, and which rarely misleads."

Can it be that the source of all this energy that does so much toward fashioning the tissues of the face is unaffected in contour and physiognomy itself, by its own modes or habits of action? Is the brain an exception to the rule of physiology that functional activity in any part contributes to growth and appreciable change in the quality of its tissue.

In his consideration of these well-based physiognomical indications of character does Dr. Holden throw aside the head, and account its contours as of little moment? We should like to see him, or any other physiognomist who ignores the relation of the brain-outline to character, read a dozen faces that were exposed only below the eyebrows, and offer his reading as a test of his system.

If physiognomy is so well-founded in physiology, why has not its principles long since been formulated and given to the public, that all may learn and apply them in the affairs of everyday life? There are books on the subject, but when examined they are found to be little more than speculations on what are the probable meaning of common featural forms. From Lavater to Redfield, authors show no allegiance to certain definite principles allied to anatomy and physiology because there are none out of Phrenology that have been laid down, and each author exploits his own impressions as to the significance of big and little noses, broad and narrow chins,

short and long ears, thick and thin lips, etc., etc.

There is *something* in physiognomy. Yea, there is a great deal in physiognomy, and we believe that it has a solid physiological foundation. Phrenology is dependent upon physiognomy for its expression, so far as the head is concerned, and as the development of the brain, has a most intimate relation to all the features of face and body, the fundamental principles of Phrenology may be taken with confidence, as aids to their interpretation on the physiological, or mental side. S. R. Wells, in his compilation, which is a very creditable attempt at classifying the views of the more prominent writers on physiognomy, recognizes this fact, and is therefore the more successful in his explanation of what passes for accepted opinion among people.

It is often a matter of wonder with us that scientific men like Dr. Holden will show so much partiality for an indefinite, unconditioned topic like physiognomy, and so much prejudice toward a system that has been organized upon facts that have become axioms in modern science; a system that has engaged the best attention of some of the ablest men of the last seventy-five or eighty years, and a system that has been in practical use with most valuable results to society.

Perhaps it had been better for its general acceptance had Dr. Spurzheim not invented the name "Phrenology," in his earnest desire to find a term that would best indicate the scope and purpose of the new doctrine.

If it had remained the physiognomy of the brain, perhaps it would have served as a guide for the arrangement

and classification of such data as observers could agree upon, and a general system of practical efficacy, comprehending the whole man, have been the outcome. Phrenology and physiognomy have in fact a common basis in cerebro-spinal function, and properly go together, and the attempt to keep them apart is the source of much uncertainty and controversy, and therefore unwise.

THE POOR INDIAN.

THE interesting article on the natives of North America, that occupies some space in the August and present numbers, suggests a few reflections on the relations of our government to the former occupants of the country. The fact has gone into the imperishable record of history that such relations, from almost their very beginning, have not been marked with the dignity and scrupulous regard to honor that are befitting a strong, ambitious nation. The Indian has been driven from his hunting-grounds and corn-fields by force, and in most cases the terms of treaties have been the dictations of a conqueror. The barbarous principle of might, imported with the better maxims of old-world polity, has prevailed in the growth of the white population, and the poor aborigine has been compelled to retire westward year after year before its selfish and persistent encroachments. Men may argue that what has been suffered by the Indians is but in accordance with the laws of progress and civilization; that the weaker elements must yield, and the fittest will inevitably survive. We may grant the influence of law in human affairs as well as in physics; but the methods adopted by men individually and as a

political body, in carrying into effect measures that may be interpreted as the outcome of progress, need not transgress every canon of kindness and equity.

That was a grand salutation of the old Chief Massasoit, when the first Pilgrims landed on the New England shore : "Welcome, white men ; there is room enough in this country for you and us ; let us live together as brothers." But what was the sentiment voiced in return of those Pilgrims, after receiving the hospitality of Massasoit and his tribe ? It is fitly expressed in the reply of Miles Standish, when at a later day, the new colony had grown strong, and the question was asked, "What is to be done about these Indians?" and he said, "Exterminate them."

American legislation in Indian affairs has apparently followed the example of William Penn, in recognizing the Indian as owner of the land, and acquiring it from him by treaty, but the fact is notorious that the terms of scarcely a single treaty have been enforced in favor of an Indian tribe, and their retaliation for encroachments by settlers has usually been followed by severe and bloody conflicts, in which United States soldiers were employed to crush down the "insubordinate" native.

Now that the poor remnants of a once powerful people are restricted to a comparatively insignificant part of the vast territory that was once theirs, it is, we think, the only humane course for our government to insist that they shall be permitted to live in peace and saved from the persecutions and robbery of unscrupulous persons. By the pressure of our civilization, in its best phases and under Christian guidance the Indian must ere

long lose his national character and become absorbed or lost in the great mesh of white industry and white socialism.

Red Cloud, not long ago, said in a public address : "The day of the Indian is gone. Our hunting-grounds are blotted out, our path is fenced up, there is no longer any room in this country for the Indian. He must become a white man or die. Our ancestors once owned this whole country. They were then a proud people. Now the country belongs to people who came from across the sea. They have blotted out the Indian trail and in its place they have made a new road; we must travel with them in this new road. I have been walking in the white man's road for many years. I ask my people to follow me."

This pathetic utterance comes from a wise chief, and its admonition will be heeded by hundreds of his people. The school and the church are rapidly bringing to pass what was once regarded as impossible, the civilization of whole tribes of Indians ; and it is not necessary or expedient that any coercive measure should be applied now. Its effect would not be to hasten the conversion of the Indian into a citizen, but rather to offset and neutralize much of the good work already done, because it would re-awaken his sense of injustice and destroy his faith, what is left, in the integrity of the white man.

Have we not had enough of petty quibbling in Congress over land grants and specious claims, the manifest purpose of which, in spite of the suave and plausible assurances of their advocates, is to deprive the poor red man of his last remnant of territory ? Can not our great nation afford to be tolerant and

forbearing toward a dying race? If not, can it afford to besmirch its record further, by repetitions of injustice? There is certainly land enough for honest settlers for the next fifty years, and if there were not, honor should not permit the Indian to be robbed.

A SIGN IN GERMANY.

WE are told that in Waldeck, a little German principality, a decree has been proclaimed that a license to marry will not be granted to any individual who has the habit of getting drunk, and if one who has been a drunkard applies for such license, he must produce sufficient proof of reformation to warrant his receiving it. Furthermore, it is required that the officer to whom application is made shall ascertain the character of both the parties who are desirous of marrying as to whether one or the other is addicted to drinking.

This is a great step for a German province to make, and it is exceedingly creditable to the government and people of Waldeck. May we and all who are interested in this vital matter of drinking reform regard this as but the beginning of a movement that will extend over all Germany and further. The moral and physical degeneracy of whole communities is so directly traceable to their drinking habits that governments that would be strong and permanently prosperous in this era of extreme national competition must strike at once the causes of popular weakness. It is beginning to be understood by statesmen and economists that the health of the individual bears an important relation to the integrity and vigor of civil affairs, and the blindness and apathy so long manifested

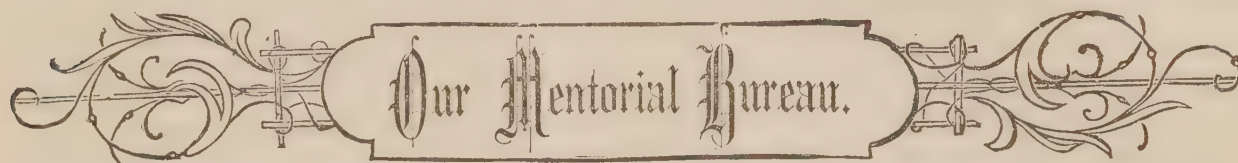
toward the pernicious effects of the general use of alcoholic beverages will give place to measures for their restriction. Nations of commanding influence can not afford to disregard the vices of their people.

A WOMAN ENGINEER.

IN "A Girl's Problem" the letter of "Ruth Carlyle" may appear to many readers as a bold piece of writing on the part of the contributor, a challenge as it were that should merit little besides ridicule, especially from men. It is altogether likely that the contributor herself expects to receive but scant courtesy for the assumption that R. C. "is made so earnestly and frankly to voice." But the idea of being a locomotive engineer is not so very preposterous for a woman, because the trade or "profession" has had one or more representatives of her sex. Only a short time ago a finely-formed and intelligent young woman visited the office of the PHRENOLOGICAL, and in the course of the interview said that she was a machinist, and made handsome wages. That such was her skill she was sent by her employers to different parts of the country to set up machinery and to do or superintend the work of an engineer. She had been led to adopt the calling because she liked to see machinery in operation and was fond of using tools. The only drawback or unpleasant part of the business was that it brought her in contact with so many men of low capacity and rude conduct, although so far as she personally was concerned their treatment was usually kind and accommodating. In her opinion there

was abundant room in the manufacturing of machinery for well-educated and ambitious men, and these did not sufficiently appreciate the need of society in

that respect, otherwise there would be less crowding at desk and counter, places that do not pay as well or help to make so much of a man.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

MOTIVE TEMPERAMENT—How Related—*Question.*—Is the motive temperament more closely allied with the bilious than the sanguine or others of the old classification. I

have supposed the bilious was more identified with the bony structure than the sanguine, but having nothing definite on the matter I venture to refer the question to you, for I have become greatly interested in the study of temperament. J. E. C.

Answer.—The motive temperament of the new classification may be said to represent the bilious of the old, but has a more legitimate relation to normal physical conditions than the bilious, because that is indicated by physiognomical conditions affecting the visceral organs as well as by the general contour of the body. Complexion is an important factor in the determination of the bilious tone, whereas in the motive temperament the mechanical apparatus—the systems of bone and muscle—is chiefly taken into account. Bilious states, if we may be permitted to use such *quasi* scientific language, are more marked in persons of the motive temperament than in those of the vital or mental, and this may be accounted for, we think, on the score of the slower circulation of the motive. See "Jacques on Temperament" for a full discussion.

HEADACHE—J.—The ordinary form of headache that is manifested by pains over the eyes and in the temples, is due to stomach or intestinal irritation that has been caused by eating or drinking improper things, Overloading the stomach with food that is hard to digest, or eating such things as hot biscuit, newly baked baker's bread, cake, pastry, etc., will be likely to produce a systemic protest through the sympathetic and cerebral nerves after a few indiscretions of the kind, and if the person have a weak stomach naturally the protest may be expected to be very prompt. The habit of using strong tea or coffee, or alcoholic beverages at meals is likely to produce head-

ache also. The stomach irritation excites the centers at the base of the brain, occasioning a slight inflammation at first, and later a decided and lasting congestion is set up. Stopping the improprieties of diet will bring the desired immunity from headache in most cases. An enema of tepid water by cleansing the bowels will usually stop the pain, and greatly reduce the general distress, and if this be followed by a hot foot and a leg bath continued for thirty minutes, while the head is manipulated by the hand of an attendant frequently dipped in cold water, the relief will be all the more thorough and grateful.

We have known simple magnetizing the head to allay most of the disagreeable symptoms of headache in a remarkably short time, but when the headache was due to gastric trouble the relief could not be expected to be more than temporary. In the headache of nervousness or weariness, magnetism is very effective, and coupled with rest ministers to restoration.

There are a great many simple causes for headache that we have not space to consider here, and must advise those who are subject to it to consider their habits and manner of life carefully, and endeavor to correct whatever is wrong in them.

PARALYSIS OF CENTERS OF MEMORY.—The case of Miss Houghtaling, to which a correspondent refers and asks for an explanation, belongs to a class of cerebral diseases that is generally named Aphasia. It is particularly interesting, because of the very unusual phenomenon of loss of memory of forms and in part of the identity of others. Miss H. is reported "in excellent health and with the exception of her inability to recognize any of her former friends is the same as ever.

* * * The strangest part of the affair is that the memory as concerns faces only seems to be affected. The ability to read and write still exists, and also recollection of places and dates. No other portion of the mind is in the slightest degree affected."

We should be glad to have a definite statement of this case from a physician or careful observer, who is familiar with it, as a mere newspaper report is likely to be wanting in that scientific accuracy, which is our only true warrant for an opinion. From the

statement as furnished by the correspondent we can say but this, that the centers on the inner anterior margin of the hemispheres or neighboring the inner angles of the eyes appear to be impaired in function, that relating to forms especially being affected, as a consequence of internal headache or cerebral inflammation; it may not prove more than a temporary disturbance of the perceptive powers.

PREVENTION.—R. A. and Others.—We know of nothing that is *safe*. The many things advised by *quasi* medical authority are each and all, not only untrustworthy, but in the majority of cases productive of harm. The health of hundreds of women is ruined yearly by the trial of improper devices. We would say here to the many who ask advice on this topic: Your only wise and safe course—a course at once honorable to yourself, and considerate and dutiful to your wife—is *continence*.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Observations on Proportion.—The Science of Man stands in the foreground of all sciences and arts as much as Lord Bacon, Shakespeare, Michael Angelo, stand in the front rank of men. To perfect our own selfhood is the watch-word of every true man or woman, and to perfect Phrenology is to improve the key to our onward progress. Of what good is education to you if the cup you are drinking is as bitter as gall? and of what practical usefulness is Phrenology if it is possible for an ingenious reasoner or observer to subvert any one of its doctrines or teachings, or if the works on this blessed science sometimes contain "errors of omission or commission?" Phrenological authors usually say of a subject, "Mr. ——— has an even, well-proportioned head," and that all his organs are equally developed. Prof. Fowler states: "Proportion is a law of universal nature; proportion is the law of mental perfection; man needs a perfect model; education should furnish it, but does not; ditto religion; ditto imagination; Phrenol-

gy alone does ; two paramount self-perfecting conditions, normality and proportion." But what, then, is normality and what is proportion with respect to cerebral organs ?

The various brain organs differ from each other with regard to *absolute* size and shape as truly as the stomach, liver and pancreas differ from the lungs and the heart. Destructiveness, for example, which is situated over the ears, it is said, renders the head wide between the ears in proportion to its size ; and to estimate organic development we are told to take the opening of the ears as our starting point and draw imaginary lines to the various parts of the skull, as enabling us to see whether Acquisitiveness is larger than Benevolence, Veneration or Conscience. In order to compare it and Acquisitiveness and Secretiveness and a number of other organs with the intellectual faculties or moral sentiments, it must be borne in mind by every phrenologist that we should take only half the distance between the ears, because there is an organ of Destructiveness, like all the others, on each side of the head. I think that their notice of this fact may save phrenologists in general from the embarrassment, sometimes, of a mistaken exposition of proportional size among the organs. The practical anatomist, however, by reason of experience, acquires the tact of recognizing whether a certain organ is abnormally large or small, and so, too, the practical phrenologist can attain skill with respect to his profession.

G. W. BOETTGER.

Phrenological Hits.—Editor PHRENOLOGICAL JOURNAL:—It is often remarked about phrenologists, that they make some good hits I have always failed to see anything remarkable about it. They simply go to nature and make reasonable deductions from what they find. I remember when Prof. L. N. Fowler first came to my native place in York, England, it was in the year 1863 or 64. After the lecture we sent up two well-known persons for examination. One was a stout, well-built man, with a large head and good organic quality ; he was a successful architect and builder ; had a son who was a barrister, and was a good lawyer himself. The Professor after eyeing his man and seemingly to me only just stroking his hair, spoke as follows :

"This gentleman ought to be an architect

or builder. If your town has a nut to crack or you are beset with difficulties, take this gentleman's advice ; he may pull you through." (Great Applause).

Just then the subject had led the corporation out of a difficulty that had puzzled everybody, hence the applause.

The other was a witty cobbler, who on all and every occasion could set a company in roars of laughter ; but he was a very inoffensive and generous soul. The Professor said—

"This gentleman is full of humor and fun ; pokes fun at everything ; he is inoffensive withal, and could not kill a mouse." In answer to a question from the audience what trade he was fit for, Mr. Fowler said a shoemaker or tailor would do.

The witty cobbler replied as follows : "Well, I am a cobbler, but I think of changing my trade, because I can not *stand sitting!* As to killing a mouse I believe Mr. Fowler saw me this morning in my shirt ; we caught a mouse in the trap, and my wife wanted me to give it to Noah Talbot's cat, but I opened the house door with the trap in my hand to let the poor thing have its liberty in the street, when it ran into the house again and into the same hole it had come out of," (Great Laughter). "My wife called me a big fool, and I think sometimes I'm a little soft."

It was on this occasion that I became an enthusiastic convert to Phrenology. Ten years later I was giving an address at a distant town, after which a gentleman was sent up for examination. He of was very light build, had white, tapering fingers, a pyriform face, jet black eyes that were rather small, and dark curly hair, with immense Ideality, Imitation and Constructiveness, Form, Size and Order, Color, Language and Memory, very large Hope and Causality.

I described him as artistic, full of imagination and various notions, rather poetic, sprightly, quick-tempered, impulsive, extremely particular, and rather dudish in dress, etc., etc. In answer to the question what calling in life he was fitted for, I said that had he been a lady, I would have assigned him to the millinery department. It turned out that he was the leading milliner of the town and everything as described.

But I only mention these circumstances as early phrenological impressions. The life of a phrenologist is brimful of such episodes. No other science can so account for the actions of men, or so unravel human nature as Phrenology, and none but a phrenologist can make such "hits."

ALLEN HADDOCK.

PERSONAL.

MARY OUTWATER WHITE, wife of Andrew D. White, ex-president of Cornell University, died suddenly at her home upon the Campus, Wednesday, June 8, 1887, aged 51 years. She was a woman of rare charm and grace, and greatly beloved and widely esteemed.

IN MEMORIAM.

Dear mother earth tenders from out her store
Two gifts to all, the gift of love, the gift
Of life; all magic forms the first may take
This friend had worn within her heart, and now
The gift of life is hers, and she has gone
To join the choir invisible, who chant
Love's praise within the halls of life.
So weep no more, dear friends, but with
love-smiles
Kiss hands and brow and lips with your
last, long,
Lingering kisses, and spread above the
lovely
Dead the radiant roses of June's first hours,
The wax of lilies exquisite, and those
Wondrous balls of snow that shimmer in the
Glow of this fair day; and thus a flower
'Mid flowers, while the bells slow chime,
that love-song
Of our souls, "Home, home, sweet, sweet
home,"
Kind hands of loving friends shall gently lay
This one beloved within a bower of bloom
To sleep a little while. AMELIA V. PETIT.

FRED'K KRUPP, the famous German iron founder of Essen, Rhenish Prussia, died July 14, aged 75. He was the first to cast steel in large masses, and was the inventor of the 80 to 100 ton guns bearing his name. He recently made 125-ton guns for the Italian government. The works of the Krupp company cover 600 acres of land, with an out-

put of upward of 1,000 tons of steel per day. In these were employed 12,000 men, for whom were built comfortable homes, besides having 6,000 in mines of the company.

MISS J. A. FOWLER, who is associated with her father, Prof. L. N. Fowler, in London, England, announces the formation of a class for the study of Phrenological Science during the fall. Miss Fowler is well-fitted to conduct such study, and we hope that the London School of Phrenology will be a success.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

Every man should have his own level in society, and rejoice in the happiness of all.

—Barnes.

Bodily enjoyment depends upon health, and health depends upon temperance.

—Thales.

Learn to live, and live to learn,
Ignorance like a fire doth burn,
Little tasks make large return.

It matters not how much intelligence one may claim, if he does not show it he will pass for a nobody.—D.

"I have learned to seek my happiness by limiting my desires, rather than in attempting to satisfy them."—John Stuart Mill.

"Deeds are powerful, mere words are weak,
Batt'ring at high heaven's door.
Let thy love by actions speak;
Wipe the tears from sorrow's cheek
Clothe the poor."

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

What word may be pronounced quicker by adding a syllable to it.—Quick.

"How are you feeling?" said the cucumber to the strawberry. "I'm ripe enough for anything," replied the strawberry. "How are you feeling?" "Rather seedy."

Medical student to charity patient: "I—I think you must have a—a—some kind of a—fever; but our class has only gone as far as convulsions. I'll come again in a week."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THE STRAYBACKS IN CAMP; Ten Summers under Canvas. By Samuel J. Barrows and Isabel C. Barrows. 16mo., pp. 305. Cloth. Price, \$1.00. Boston and New York: Houghton, Mifflin and Company.

A pleasant recital of genuine adventures in summer quarters by cool streams and under foliage pristine, Mr. and Mrs. Barrows give the reader. For those who would make the best of summer leisure, in refreshing brain and body after toil prolonged at the desk or counter, in the study or narrow office, this volume comes to supply many suggestions. It is not only an outline of how a family or a party may enjoy nature in her quiet recesses, away from the dust and heat of the city, but much more; its details are full of the manners and economies of a camping out, and of incidents that came in to break the current of what might become tedious by its monotony. The success of a summer camp depends, as the writer of the Preface says, on knowing how to do it, and that the Straybacks were masters of the situation and secured rich results in enjoyment at small expense the sketches abundantly prove. The camping-outs we chiefly hear of are affairs of men, and probably most people think that women are necessarily debarred from them, but we find that our friends the Straybacks deem wives and daughters a "great part" of their tent life, and that the women element contributes essentially to its success.

THE NEW CHRISTIANITY.—An Appeal to the clergy and to all men, in behalf a of Life of Charity; Pertaining to Diseases, their Origin and Cure; The use of Intoxicants as Beverages and for Sacramental Purposes; The use of Tobacco and Opium; The pernicious and destructive Habits of Women, and the Abuse of Children; and the prevailing Cruel Treatment of Girls and Young Women. By John Ellis, M. D. Author of "Avoidable Causes of Disease" etc., 12mo, pp. 511. Price 50 cents. New York: Published by the author.

This title discloses the general scope of this volume. It is an appeal, with evidences of the reason for it, in behalf of a better condition of public morality. Taking his stand on the hygienic principles set forth by the Christian's Bible he challenges Christians, especially ministers, those who claim to be the guardians of Bible truth, by virtue of their office, to be true to their profession and live in accordance with the commands of that truth. Dr. Ellis has been in the forefront of those medical men who urge prevention as the grand solution of the thousand moral and physical evils that torment and destroy the people. He boldly assaults every form of vice; it matters not by whomsoever and howsoever supported. A profoundly religious man he nevertheless goes into the church and tears aside the marks and semblances of sanctity that exist there; and attacks every fashion that hides vice, every habit that has in it the seeds of moral harm. This is a strong book. It tells the truth, and hits hard in many places where society is accustomed to expect only goodness. Until the better class of men cease to temporize with wrong we must expect mixed councils and vain contentions. Let every one who hopes for better things join Dr. Ellis in the war against the common evils of social habit and the community will ere many days rejoice in a new-found freedom.

PUBLICATIONS RECEIVED.

THE TWENTY-SIXTH, Twenty-seventh and Twenty-eighth Annual Reports of the Trustees of the Cooper Union, for the Advancement of Science and Art, May 28, 1887.

This document relates to the educational work of this admirable gift to the people, and it is as usual, full of interest. Over 3000 young men and young women have received free instruction in the different departments during each winter term, and hundreds have gone out with certificates of proficiency in their hands, and taken good places by reason of their added capabilities.

THE TWENTY-SEVENTH ANNUAL ANNOUNCEMENT of the New York Eclectic Medical College comes to us with intimations of advancement and vigor that are unmistakable. With a good board of officers and so strong a faculty, the institution appears to have reached a desirable plane of usefulness. An institution formed on such broad principles of humanity and scholarship deserves, we think, the support its increasing student list shows. G. W. Boskowitz, M.D., Dean, New York City.

CURRENT EXCHANGES.

Manufacturer and Builder: Monthly. Illustrated. New York.

The Western Rural and American Stockman. Milton George. Chicago.

The Open Court, a bi-weekly of liberal thought in science and religion. Chicago.

The Inter Ocean: Weekly. A progressive newspaper, that combines many features. Chicago.

The Georgia Electic Medical Journal. Dr. Adolphus, editor, is a staunch organ of its particular school. Atlanta.

Journal of Reconstructives: Discusses food in its relations to old and young, and kindred topics. John Carnrick, New York.

Scientific American: weekly. Practical information in matters of industry of the more popular types. Munn & Co. New York.

Archives of Dentistry: Monthly. Record of matters inviting to the tooth-pulling and tooth-making fraternity. J. H. Chambers & Co., St Louis, Mo.

Le Progres Medical: a medical and surgical journal of importance; quite independent in opinion, and liberal to new theories. Bourneville, Paris.

Harper's Magazine. In the August number we note, as inviting the general reader, a semi historical account of the old Buccaneers of the Spanish Main. The neighborhood of the International Park; Hunting the Grizzly Bear; A Fisherman's Mate; The Natives of Siberia; Ravenna and Its Mosaics; Here and There, in the South, all of which are illustrated. The Irish party is a definitive article on the parliamentary crises in Great Britain, and Hypnotic Moralization, a mere glimpse of a subject that will yet appal the unthinking. New York.

The Popular Science Monthly: Those who receive the August number of this plethoric publication, will read, we think, with care Dr. White's New Chapters in the Warfare of Science, and also find themselves interested by The Economic Disturbances since 1873, wherein some unexpected lessons are given to those who complain of industrial distress. Other topics are The Falls of the Mississippi, Manual Training in School Education, Progress of Science from 1836 to 1886, Educational Endowments, Sketch of Paul Gervais, with portrait. We like the points made in Educational Endowments, they are sharp and true to the core. D. Appleton & Co., New York.

Literary World. Readings and notices, etc., of the publication world; weekly. Boston.

The Eclectic Magazine, of Foreign Literature, August number at hand. E. Pelton, New York.

The Cultivator and Country Gentleman, weekly. Good authority on farming and stock matters. Albany, N. Y.

The Theosophist, monthly. H. P. Blavatsky, editor. We wonder who knows the age of this venerable editor. Madras, India.

Vick's Illustrated Monthly, devoted to the garden, and keeps fully abreast with horticultural progress. Rochester, New York.

The New England Magazine, has a varied field, old and modern interests, historical and problematical, all of which are put in excellent type. Boston.

World Travel Gazette: Monthly. An inexpensive bulletin of information for the traveler and tourist. World Travel Company, New York.

Our Little Ones and the Nursery: an admirable monthly, well illustrated, and really suitable for children. Russell Publishing Co. Boston.

The Christian Advocate; principal organ of the Methodist Episcopal Church. Dr. Buckley is working with much earnestness for the missionary interest; weekly. New York.

In *Lippincott's Monthly*, for August, we find: A Land of Love; The Truth about Ouida; Life for Life; the Sorrow of the Sea (a poem); Social Life at Yale; the Keely Motor Secret; Is the Base-Ball Player a Chattel?

Christian Thought for August has, The Conservation of Spiritual Force, A Literary Genesis, in the Light of Present Knowledge, Law and Miracle, Anticipation of Scientific Truth in Scripture, among its specials, besides particulars regarding the "Summer-school" at Key East. W. B. Ketcham. Pub. New York.

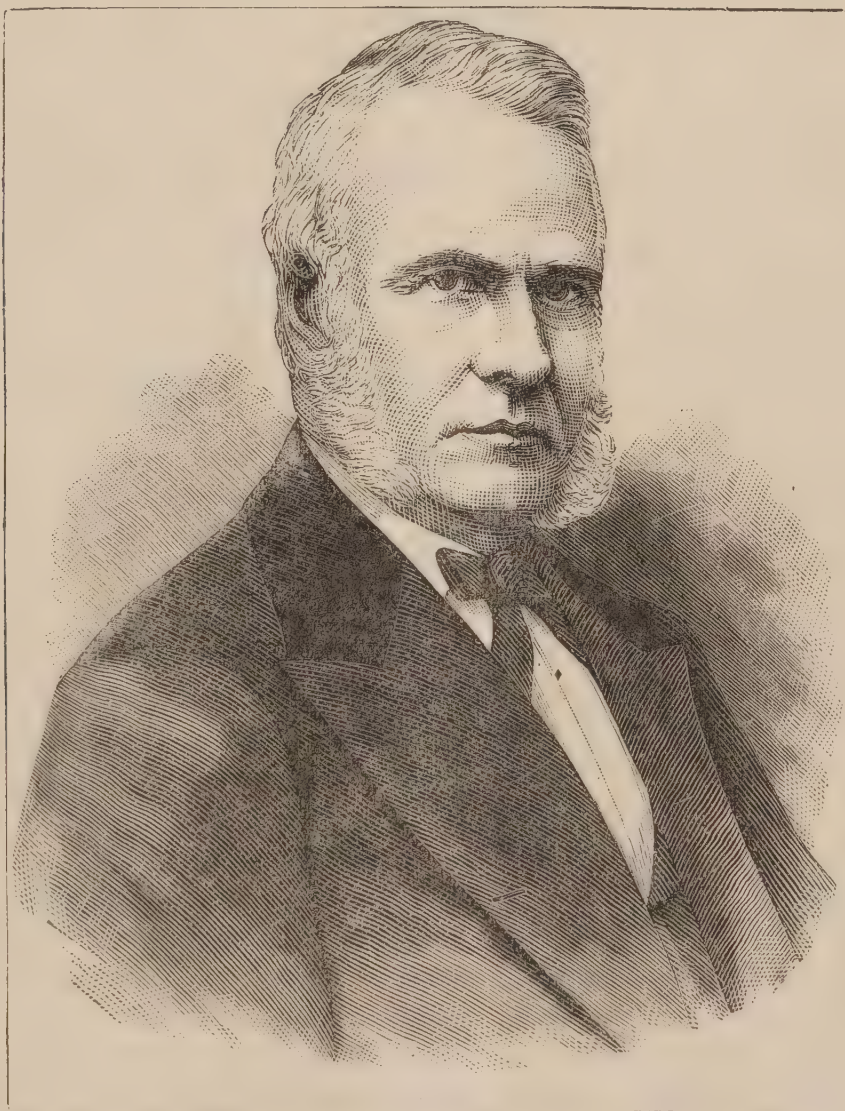
The Century: Late number opens with a fine portrait, that of Count Tolstoi, the Russian writer. Then follows Peterborough Cathedral with illustrations of the edifice and the old town: College Boat-racing is very Hawthorneish, Abraham Lincoln, a History, keeps up its interest, How Food nourishes the body; From the Wilderness to Cold Harbor; The Fighting at Spotsylvania; Memoranda on the Civil War; Lord Wolseley's Estimate of General Lee; Church Union, a Little Symposium; Applause as a spur to Pegasus, etc. Century Co., New York.

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[WHOLE No. 586



LUKE P. POLAND, OF VERMONT.

VERMONT has experienced an important loss by the death of Luke P. Poland. He had been for many years one of her most prominent citizens; both in private and public life his character was distinguished for uprightness, zeal and

fidelity. He had occupied positions of trust and honor, and was regarded one of the most useful men of the state.

In a summary of the portrait the examiner says :

This head and face would command respect anywhere ; they express intelligence, integrity, courage, and stability, and they also express refinement and susceptibility, power of acquiring impressions and becoming correctly informed in regard to one's surroundings.

His perceptive organs were well represented in the lower part of the forehead, consequently he became cognizant of truth in whatever form it may have been presented. The upper part of the forehead was massive as well as high indicating power to gather and comprehend knowledge and to push facts to their legitimate conclusions.

That was a judicious mind, forming judgments soundly on logic and integrity as embodied in facts ; it was natural for him to seek facts patiently until he felt himself in possession and then to reach forward to the conclusions which would stand the test of time.

As a lawyer he would be clear-headed and sound, not necessarily showy, but every step he took and every word he uttered would be like a nail in a sure place, and clinched at that ; he would build up an argument until it would seem to be impregnable and stand on a firm foundation ; but his power as a man, as an advocate, as a thinker, was in the fact that he was true to the logic of affairs and true as well as to the moral outcome of them.

His head, from the opening of the ear to the top was very high, showing uncommon Firmness, a good degree of Self-esteem and very large Conscientiousness ; he would command the respect of his opponents ; they would believe in his integrity whatever they might think of the drift of his opinion ; and as a lawyer or a magistrate, people would respect his opinions, and partisanship would not be likely to mar his

friendship or separate him from good thinkers and men of moral purpose of any sect or party.

The back head is out of sight, but the face indicates cordial friendship, constancy of love and a good deal of ardor and emotion in the manifestation of his social impulses.

One may look long and anxiously to find a better top head than that, a higher sense of justice and moral obligation, reverence for what was sacred, sympathy for those who suffered, a better knowledge of men and ability to influence them in such a way as to lead to co-ordinate action and opinion ; as a jury advocate he might have found now and then three quarters of the jury prejudiced against his cause, but before he got through with his argument they were induced to take a different view of it and a more correct view.

It is not of such men that the public is suspicious in regard to the merit of their purpose and the drift of their spirit ; occasionally a man is said to be better than his party, higher than his creed, that he lives above the rule, climbs higher than the trellis, and such an organization is a blessing to the family and the community where it is located and wields its influence.

We are informed by Mr. L. P. Page, of Burlington, who knew Mr. Poland, that the distinguished career of the late ex-Senator was in part predicted by a Phrenological lecturer in this way. The lecturer, one of the Fowler brothers it is supposed, was traveling in New Hampshire, and had stopped at a hotel where a large number of lawyers were staying during the session of court. Being in company with several of them he was invited to make an examination of their heads, and in the course of the interview was asked by one who would be the next judge. He replied, "I do not know who will be, but I can tell you who ought to be." "Very well," said a lawyer, "who is it?" The examiner turned directly around, and pointing to

a young man who was sitting a little apart, said: "That young man in that chair."

At first they laughed, and said they guessed he had made a misstatement, and asked him why he thought so. "Well," replied he, "the combination of his faculties, his keen, sharp wit, large comparison and casuality, large and powerful frame to support his brain, his education and excellent health, etc., all prove beyond controversy, that he is the best man *present*, and is in every way adapted to be a judge."

From that time forward the young lawyer grew, not in stature wholly, but in the knowledge and hearts of the people, and was the first and only judge elected from that company. This young man, so well described by the phrenologist, was Luke Potter Poland.

Mr. Poland was the son of Deacon Luther and Nancy (Potter) Poland, and born in the town of Westford, Nov. 1, 1815. When he was six years old his parents removed to Coit's Gore, now part of the town of Waterville, Lamoille county. He there acquired his early education in the common schools, adding two terms in the academy. At the age of eighteen he commenced the study of law, and at the age of twenty-one was admitted to the bar of Lamoille county. He commenced the practice of the law in Morrisville in 1838; was appointed register of probate in 1839; represented the town in the State constitutional convention of 1843, and was State's attorney in 1844 and 1845. He rapidly acquired prominence and reputation as a lawyer; in 1848 was elected to the bench, having been elected fifth associate justice of the Supreme Court. Upon the establishment of the Circuit Court of Vermont, in 1850, he was elected one of the judges, and held that position until the re-establishment of the Supreme Court in 1857, when he was elected second associate justice, and in 1860 succeeded to the chief-justice-ship.

In 1865, having had eighteen succes-

sive elections as judge, he was appointed United States senator by Governor Dillingham, to fill the vacancy caused by the death of Jacob Collamer. At the session of the Legislature in 1866 he was elected to serve the remainder of that term, Mr. Morrill being at the same time elected senator for the full term, commencing the following March. While in the Senate he served on the Judiciary Committee and the Committee on Patents and the Patent Office. He was a delegate to the Philadelphia "Loyalist" convention of 1866. He was sent to the 40th Congress in 1866 as representative of the Second District, to succeed Hon. Justin S. Morrill who had been promoted to the United States Senate and was successively re-elected to the 41st, 42d and 43d Congresses. During this period of his public service he served on the committee on elections; as chairman of the committee on the revision of the United States laws, as chairman of the committee on unfinished business, as chairman of the select committee on the Credit Mobilier, and chairman of the special committee on the affairs of Arkansas.

He made speeches on Reconstruction, on Louisiana affairs, on the Ku Klux, on the Credit Mobilier, and on the Geneva Award, all of which attracted wide attention during that critical period, as wise, statesmanlike and patriotic utterances. He added to his national fame by the speech made by him in support thereof in March, 1875. He was a candidate for re-election to the 44th Congress in the fall of 1874, but was defeated by Dudley C. Denison. He then resumed the practice of his profession, being engaged in many of the heaviest railroad and other cases, and in his duties as president of the First National Bank of St. Johnsbury, which office he held for twenty-two years.

In 1878 he was elected to the State Legislature as representative of the town of St. Johnsbury, and was the acknowledged leader on the floor of the House.

In 1883 he was elected to the 48th Congress, in a triangular contest over Fletcher, democrat, and Grout, republican. In this Congress he served again on the Judiciary committee. He declined a renomination to Congress and again retired to private life. In 1886, however, he again accepted an election to the Legislature as representative of the town of Waterville, and was connected with almost all of the most important legislation of that session. This was his last service as a legislator. He was prominent in the organization of the National Bar Association in 1878, and held thereafter the chairmanship of the general council and executive committee of that association. He was elected a trustee of the University of Vermont and State Agricultural College in 1878, and re-elected in 1884. In

that capacity he rendered faithful and able service to the University and to the State. He founded a scholarship in the University for the benefit of his native town of Westford; took a strong and genuine interest in the welfare of the institution and his death is a serious loss to his brother trustees and to the University. He received the degree of Doctor of Laws from the University in 1861.

As lawyer, jurist, State and national legislator, financier, and friend of education Judge Poland was truly and justly eminent. He was earnest in his political career from the first, but he was not a machine politician. He was a man of striking personal appearance and marked dignity, yet genial in social intercourse and esteemed most highly by all who had any dealings with him.

A VISION.

My little sister, night before the last
I dreamt I heard thee utter sweet "farewell,"
And turning to the spot on which thine eyes
Were gazing, fondly, yet with sadness, I
Beheld a little girl with features cast
In classic mould, although her face as yet
Betokened youth. A sad, sweet longing
dwelt
About her quiv'ring lips, as if too loth
To give an utterance to parting sobs
That swelled within her breast; and yet I
saw
The heavenly delight that lurked
Behind her grief—that bade a sweet "good
night"
To transient youth, and welcomed in the
morn
Of earnest womanhood.

* * * *

The vision passed ;
Another turn of life's kaleidoscope
Revealed to me again this little child,
Embarking on a craft of magnitude
Almost momentous as the world itself,
And manned by Virtue. Truth stood at its
helm,

With look unswerving, and as true and firm
As the eternal gods themselves. Upon its
side
I traced with anxious look the letters bold
And bright as noon-day's sun, reflecting
naught
To dim its lustre—shedding halos bright
Upon her face of faces—on which
The sun-god rays of Love and Purpose
shone—
The talismanic name by which it sailed,—
The one word, "Hope," bound for the
quarantine
Of heaven, laden with the brightness, cares
And faded reck'nings which Eternity
Hath given for its cargo. Turning once
Again I found thee gone. The vision past ;
The craft had glided from my sight—
And in my heart's low depths arose a
prayer,
Invoking safety from Contention's storms,
Until thy ship shall safely anchor in that
world
Whose atmosphere is pure-eyed chastity,
And language, sweet-voiced charity !

JOHN HAZELRIGG.

SOME OBSERVATIONS IN MESMERISM FORTY YEARS AGO.—NO. 1.

IT is now more than forty years since three young men, brothers, named Baily, myself and a medical man, a Doctor Mahoney, tried our hand at mesmerism. We were very successful in our amateur endeavors, and were able to prove by mesmerism, beyond all doubt, that Phrenology was not a mere theory, but an established fact—one of the facts that could not be denied existence unless by learned fools or unlettered ignorance.

The Bailys were the proprietors of a large hat store in a populous town in the South of Ireland, but resided in another street, so that the upper rooms of the store building were at our disposal. We selected a large room in the second story for our experiments. We kept our proceedings quite secret until such time as we could, without failure, show our friends what we were able to do in the mesmeric line, and we certainly astonished them the first time they witnessed our performance.

Instead of the practice then in vogue of putting the subject into the trance by the imposition of hands our method was to stand behind him and place some small, bright object before his eyes, and about twelve inches from them, and then gradually decrease the distance until within two inches or so of his face, where it was kept until he succumbed to the influence. A gentleman's breast-pin was what we commonly used ; but we sometimes tried other articles with success.

On one occasion a young man named Troy, who had come to us off and on for weeks for the purpose of being mesmerised, got caught at last. Each of us had tried our very best to put him into the sleep, but all our efforts were in vain, although he was most anxious for it, and at each failure on our part he was as fully disappointed as we were. But one evening while I was mesmerising a boy he came into the room and seated himself on an old nat-block and kept

watching the proceedings intently. He kept his eyes fixed on the back of the breast-pin I was using. By and by noticing that his eyelids began to droop I made signs to one of the Bailys' and he took my place at the boy's head while I went quickly to the back of young Troy, and having nothing else at hand took my penknife from my pocket and placed its back before his eyes. He was instantly attracted by the brightness of the spring, the knife being a new one, and in less than three minutes he was in the trance. Troy was not over and above fond of work ; he preferred strolling around with his in hands his pockets. This caused many scenes between him and his father, who was a hard working man. Mr. Troy, senior, had seen us mesmerise several persons but could not understand anything about it, and said it "was a double puzzle" to him ; and it happened that just as his son Edward went off into the sleep he entered the room in quest of him. Immediately on seeing him I awoke the organ of Veneration and Ed. instantly fell on his knees and prayed aloud most fervently, to the great surprise of his father who was well aware that he was not addicted to praying either aloud or silently. While he was still at his devotions I excited Combativeness and instantly he was on his feet calling on some imaginary foe to come on and "he'd let him see who was best man ;" at the same time he assumed a variety of pugilistic attitudes. Next I called Self-esteem into action, and then came innumerable orders to his valet, coachman, jeweler, tailor, etc., while he strutted about with an arrogant gait that would put Beau Brummel to the blush. The old man looked on for a while as if in a dream and walked away muttering something that we could not understand.

We had two ways of awakening a patient ; one was by fanning his face for a few minutes ; the other was by having him promise, when being put into the

sleep, that he would awaken himself at a certain denoted time. Neither method ever failed. When he promised to awaken himself he commenced, at the exact time, to inflate his nostrils, not stopping, unless to take breath, until he succeeded in accomplishing the task.

Mr. Henry Baily was once much frightened. A young lad he had mesmerised had just awakened himself, but could not open his eyes, and cried out that he was blind! Baily was shocked, but had nerve enough to commence fanning him, but with no effect. At last he tried volition and to his great relief the lad's eyes opened immediately.

At first when we wished to awaken a particular organ we used to name it aloud, but the skeptics would not be persuaded but that the patient and mesmeriser were in collusion. The patient, they said, was taught to respond to each organ knowing that when music for instance was the one named he was to sing or dance; when it was Veneration he was to pray, and so on, with all the others. But we took a very easy way of convincing them of their error.

We wrote out the names of such organs as would show off best and when a patient was in the sleep requested the doubter to point out the faculty he wished to have awakened, then, instead of naming it aloud the mesmeriser aroused it by mere volition, or just merely wishing it, and in every case there was a sure response. We also allowed the skeptic to choose as many as a half-dozen organs, which were quickly awakened, one after the other in quick succession.

Although it was evident that the skeptics, who were principally medical men, were in their own minds fully convinced that our seances were conducted without trickery, they would never acknowledge it, but continued to class themselves among the doubters.

Danny Cummins, a youth of fourteen years or so, was our stock patient; he was an errand boy in the hat store, and

whenever his employers could spare him we claimed him, and as he liked to be mesmerised he always came to us when opportunity offered.

As he was our very best subject, I will confine myself to his various performances, although we had several others of whom we needed not to be ashamed. It took Danny but a few minutes to fall into the sleep, and after awhile he became so used to it that he got into the habit of mesmerising himself by staring at one of the counter gas-lights. He became so addicted to practicing this trick that we made him promise, while in the trance, never to put himself in the sleep again, a promise he faithfully kept ever after. Strange as it may seem I never knew a patient that did not, after he was awakened, perform what he had promised while in the mesmeric state. We also made a point of naming the time in odd minutes to see if he would be exact as to time. We also asked him if he were willing to do whatever we wished him to do. The answer was generally in the affirmative, but if he said no or made some excuse for not doing as requested, we never tried to persuade him to do it. We proceeded somewhat thus—"Danny, will you do as I request you when you are awake?" "Yes, sir." "Well, then, at thirty-three minutes past — o'clock, go to such a place and do such or such a thing, or tell Mr. — so and so." The moment the time mentioned had arrived, no matter what he had been doing at the time, it was thrown aside, away flew Danny and performed his errand. When that was done he returned and without the least mention of what he had been doing resumed his work as if nothing unusual had happened.

We noticed that when the time to start was drawing near he always looked as if gazing at some unusual object, and he appeared also as if listening to some strange voice; then, without paying the least attention to any of those present, rushed out of doors and fulfilled his

promise whatever that was. We always allowed several hours to elapse between his promise and its performance.

I may here remark that not one of our patients could recollect what had occurred to him while in a trance, nor could he recollect one word of what was said by himself or anyone else. The

time spent in the sleep was a complete blank. Those who had been mesmerised several times grew fond of it and eventually hankered after it, and often annoyed us by persisting in being put into the trance when we had neither time nor inclination to attend to them.

WILLIAM O'GORMAN.

SOME NOTABLE CHARACTERS OF THE DAY.—NO. 1.

WHEN we scan the foreign news in our morning newspaper we are likely to meet with the name of W. H. Smith in connection with English parliamentary affairs, for Mr. Smith occupies an important place in the present ministry, being the Secretary of War, and questions are constantly rising that demand his attention. Mr. Smith possesses a good stock of vitality, or the portrait is misleading, the tissues of the lower part of his face are well nourished. He has a large brain, and the indications are that early in life the mental temperament predominated, while now the vital has come to make about a balance with it. His head is high at the crown, giving him character for authority and staunchness; it is also rather wide, showing energy, executive capacity, tact and shrewdness in the management of affairs.

Mr. Smith is a successful business man, and well known in the publishing circle of Great Britain. For many years he has been at the head of a great concern known by the name of "Smith & Sons," which is to England what the American News Company of New York City, is to the United States. He derives a princely income from his house on the Strand, which has been built up by degrees, advancing with the progress of journalism, and being administered to-day with remarkable efficiency. Smith & Sons are the chief distributors of all publications. Their advertising business is the greatest in the Kingdom. A feature of their management, which has no

parallel in the United States or in any European country, is the renting, as it were, of the principal railway depots throughout the country for their purposes. They lease the walls of the stations to exhibit advertisement placards, and they have a book and newspaper stand on every platform.



W. H. SMITH.

Mr. Smith's business ability and wealth have given him importance in society and advanced his participation in political affairs. He, in fact, was known prominently in the latter years ago, having served in the Disraeli ministry, as First Lord of the Admiralty.

When the new French ministry was formed under the leadership of M.

Rouvier, the appointment of a successor to Gen. Boulanger, whose anti-German spirit, it will be remembered, had awakened no little feeling on both sides of the Rhine, fell on Gen. Ferron, an old and tried soldier, who was born in 1830, and early turned his attention to the study of military science. He was a pupil of the Polytechnic School, became an engineer, and a veritable trooper. With the command of a Lieutenant in the Crimea he won his Cross of the Legion of Honor in the trenches at Sebastopol. For twenty years he served in Algeria, in Kabylie. He was on service in New



GEN. FERRON.

Caledonia when the war of 1870 broke out, and arrived in France in time to take part in the second siege of Paris against the Communards, when he was Chef-de-bataillon. Subsequently he was Chief of Staff of the Ninth Corps at Tours, under the orders of General de Gallifet, and Sub-chef of the General Staff of the Ministers of War Thibaudin and Campenon. General Ferron has a very high reputation in the army as an officer of great practical experience, and is regarded as capable of carrying out the great military reforms now under way.

He has a fine physical constitution, and the marks of an energetic and spirited man. His head is very broad, but not very high, giving him traits that belong to the practical, matter-of-fact, and to every-day life, more than to sentiment or spirituality. We judge that he is fond of applause and ambitious to succeed in large enterprises, but not a venturesome, rash man. The portrait shows unusual breadth between the eyes, and if this be true he should be remarkable for his memory and appreciation of form and contour. As an engineer he should show more than ordinary ability in draughting, and in his knowledge of topography. He is a natural geographer, and his courage and nerve should be unquestionable. The type of face appears to us to approach that of the German, as the features possess more of the stolid and matter-of-fact character belonging to that race than of the excitable and capricious humor that is attributed to the French.

A "possible candidate" for the Presidency of the United States is suggested by the next name that is given, Joseph R. Hawley, senator from Connecticut. He is a gentleman whose reputation is very high for intellectual ability and for moral integrity. The portrait is that of a well-balanced head and face. The perceptive organs as shown by the massive brow are very large and intimate a man of ready observation, and of broad and discriminating judgement. The temples are very full, and taken into the account of his character signify that he has more than average power to plan and organize measures. He is a natural constructor; if he had studied engineering and the practical methods of the builder he would have become eminent, almost as a matter of course, as the projector of large enterprises like bridges, trunk-lines of railway, and public edifices. With such an organization Mr. Hawley should be known for earnestness, force, emphasis—and at the same

time, on the social side, for good-nature, kindness, the wish to please others and to do his duty toward friends and the community. He is a gentleman of undoubted spirit and pluck, yet by no means arrogant or overbearing.

Mr. Hawley was born at Stewardsville, Richmond county, N. C., on the 31st of October, 1826. He was prepared for college and entered in due time at Hamilton, N. Y., where he was graduated in 1847. Having chosen law as his vocation he studied and was admitted to the bar at Hartford, Conn., in 1850. He has since resided there and for six and a half years practiced his profession, withdrawing from it to become editor of the *Hartford Evening Press*, 1857, which was consolidated with the *Courant* in 1867. He enlisted in the army in April, 1861, and served during the remainder of the war, becoming after a series of promotions brigadier-general and then brevet major-general.

Returning from the war in 1865 his fellow-citizens of Connecticut elected him governor in the following year, as the successor of Governor Buckingham. His election to Congress for several terms was from a district exceedingly close in its partisan divisions. His record in the lower house was honorable in the highest degree. The published debates of the time show that he had decided opinions upon all debatable questions of national interest. So his services in the Senate of the United States, add to a record that is clean and honorable.

His executive capacity was strikingly displayed during his service as president of the Centennial Commission in 1876. The great exposition in Philadelphia was a grand triumph, not by the skill and direction of any one man, but the country felt that it was in safe hands with General Hawley at its head, and, while his associates deserved their full measure of public confidence, his administrative ability in that honorable position was most creditable.

As a platform speaker General Hawley is one of the most impressive of the political orators of the country. His manner is energetic, his voice full and resonant, and his matter well arranged and forcibly put.

The next in order of our subjects is a man who has become within the past year, one of the most widely known of Americans, the Rev. Dr. Edward McGlynn. For many years he occupied a post in the Roman Catholic ministry that was second to none in influence. As priest of St. Stephen's church, New York, he was the beloved of an immense



JOSEPH R. HAWLEY.

congregation, and probably had the best of opportunities for ecclesiastical advancement. But he saw fit to sacrifice place and ambitions for opinions that relate to matters of social and civil economy, and to devote himself to what he considers his duty, trying to help the poor and the working-classes to obtain a larger share of the world's good things.

We may not agree with him in his views of the way in which the "eternal equities," that are the heritage of man, are to be received, and we may not regard his separation from the church, in which for so many years he had been

doing valuable service for God and man, as a wise step altogether, but certain it is that in most respects he has been true to the impulses of organization. His head shows warmth of feeling, tenderness, sympathy, with something of excitability. He is a social, friendly man with nothing of the austere that is usually regarded as indispensable in some degree to the true priestly character. He possesses the sprightliness and quickness of the Irishman, and all the emotion, and these qualities are controlling.



DR. EDWARD MCGLYNN.

Take away Dr. McGlynn's sympathies and you despoil the man of his essential nature; for it is the heart in him that actuates intellect and body. His intuitive perceptions are rapid and keen; he leaps to his conclusions, and has a deep consciousness of their validity. His broad, full forehead and heavy brows show power of memory and ability to criticise and analyze. His sense of proportion, harmony and beauty is marked, impressing on gesture and language a natural and winning grace. As a speaker he is fervid, when his emotions are awakened, and whatever interests the sympathetic side of his nature is sure to draw the warm blood to his brain

and stimulate the faculties that relate to kindness and humanity. Edward McGlynn is a New Yorker by birth, and about fifty-one years of age. He was educated at the public schools until at the age of seventeen he was sent to the College of the Propaganda at Rome, and there remained about seven years. Returning to America he was assigned by Archbishop Hughes to a position as military chaplain. In 1866 he was appointed pastor of St. Stephen's church, New York, succeeding the widely known Dr. Cummings. There in a short time his eloquence and quick sympathy and consideration for the trials and cares of others won the warm affection of a very large congregation. He was drawn to take part in politics especially on their humanitarian side, and to participate in popular reformatory movements, but exhibited, until his recent advocacy of the doctrines of Henry George, a spirit entirely independent.

Another New Yorker of prominence deserves mention, because of his relation to several important interests that affect the social and civil movements of his city. Abram S. Hewitt, as mayor of New York, has shown a spirit above party, and the endeavor of a man who appreciates the great need of reform in the administration of the different branches of municipal government. He has labored to bring about changes for the better in the excise department, in the sanitary and other departments, and won the esteem of good citizens who understand the difficulties that beset every attempt to purify and improve the working of the civil affairs of a great city where factious strifes and official greed for party and personal ends have been the common order for many years.

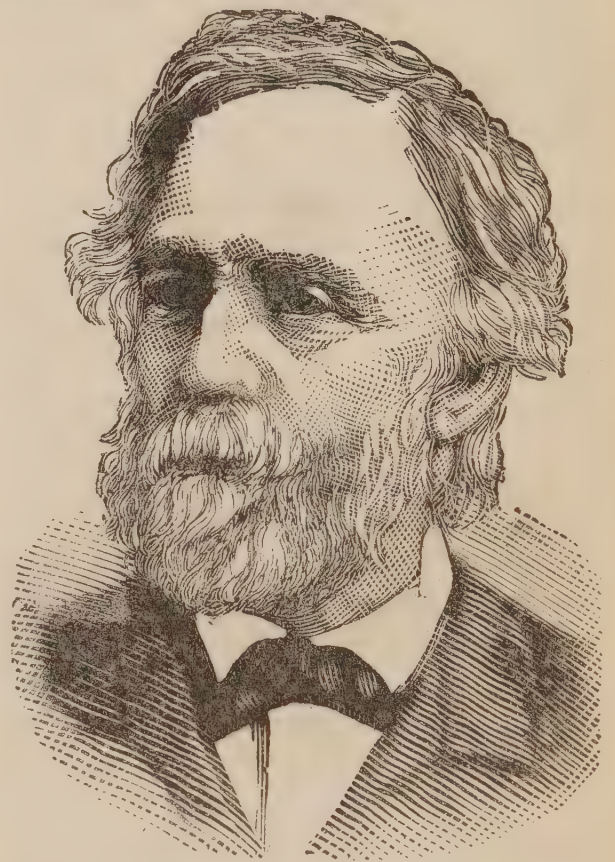
The portrait in itself shows a man of superior organization. That is a very high head, the head of an observer and student, of a keen, judicial mind. He should be remarkable for his power to

understand and organize affairs that involve much consequence; small matters embarrass him more than large; he is at home where the interests are many and important. In a retail store he would be out of place; at the journeyman's bench he might be a bungler, but in the great mercantile establishment, and in the manufactory with its dozen departments he would be at his ease and efficient. Consider the length of a line drawn from the eyebrows up to the hair. It is not of the ordinary, and indicates very remarkable power in recognizing the motives of others, in measuring at sight their mental calibre. Mr. Hewitt appears also to be a sharp critic, a rather severe one too, where mistakes that involve moral responsibility are concerned. He is very sensitive about honor, and inclined to hold others to a rigid account for any wilful crookedness in conduct. Yet we must regard his benevolence as very marked, rendering him kind and willing to do service when it is needed, but he must be satisfied of the merits of the case. He is a man of individual views; and nothing of the imitator. A strong will should be one of his special traits, that sometimes goes so much against the conventional notions of people that he may be called eccentric or cranky. But he rarely makes a mistake of judgment, and those who know him best feel that his opinion is worthy of respect, however out of consistence it may be with what seems to be in accordance with facts.

Abram S. Hewitt was born at Haverstraw, New York, July 31, 1822. His early education was obtained in the public schools of New York city, where he gained a prize scholarship for Columbia College. From there he was graduated at the head of his class in 1842. He then studied law and was admitted to practice in October, 1845.

Weakness of the eyes led to his abandoning the profession, and he then engaged in the iron business with his father-in-law, the late Peter Cooper, under the firm name of Cooper & Hewitt. They

established extensive iron-works in New Jersey and Pennsylvania. In 1867 he was appointed one of the ten U. S. Commissioners to visit the French "Exposition Universelle" and made a report on "Iron and Steel," which was published by order of Congress, and has since been translated into many foreign languages. He was prominent in the organization of the well known "Cooper Union," designed for the especial benefit of the working-classes, and is still an associate manager of the institution.



ABRAM S. HEWITT.

In the politics of his city and State, Mr. Hewitt has taken much interest and given much official service as a member of the Democratic party. For several terms in Congress he has been elected, and now he occupies the responsible place of Mayor of New York, where he finds his duties far from a "flowery bed of ease." He was advanced by his party as a candidate in the interests of reform, and he is evidently in earnest on that line whether or not the shrewd party managers who supported him made the cry of "reform" a mere pretence.

THE CHRISTIAN RELIGION, ITS HISTORY AND DIVISIONS.—NO. 9.

THE REFORMED CHURCH.

AMONG the leaders of the Reformation of the 16th century Calvin and Luther stand pre-eminent. Without consultation or acquaintance they both saw errors in the Roman church and determined to combat them. None are constituted intellectually alike, and although working for the same ends—the emancipation of mind and the establishment of freedom of thought—they did not always use the same means. Both were men of strong will, excessive firmness and indomitable perseverance, but they sometimes used these powers in different directions. Calvin was the more practical. Luther had more imagination; Calvin strenuously opposed the shows and ceremonies of the Roman church, while Luther considered many of them as useful means, and even saw in images an aid to true worship. Luther made much of the value of character and purity of conscience, holding that a desire to do right is better than a strict observance of forms, and believing fully in justification by faith, while Calvin held good works of little avail and taught most seriously the doctrines of fore-ordination, predestination and election. The immorality of the church was the great horror of Luther; its idolatry that of Calvin. Calvin lived among people who were to a great extent their own rulers, and his system became infused with the democracy in which it had its growth. Luther gave his allegiance to temporal princes and powers, and was from education and surroundings more inclined to aristocracy. Calvin was an awakener of thought, leaving the thinkers to themselves; Luther more of an organizer massing for greater power those whose opinions agreed with his own. Both taught the right of individual judgment, but were not always ready to grant it, and while they loudly inveighed against the intolerance of the

Pope, they were not entirely free from the same fault. Calvin burned Servetus, and Luther recognized the right of government to interfere in religious matters.

But the point of greatest difference between the teachings of these two reformers was on the question of the Eucharist. The Lutheran church while denying the assertion of the Catholic church that the bread and wine of the sacrament are changed into the veritable body of Christ, (transubstantiation) held that while the bread and wine suffered no change in their component parts, that in some mysterious way there was a corporeal as well as a spiritual presence “in with and under” them, while the Calvinists believed that the worthy receivers “not after a corporeal and carnal manner, but by faith were made partakers of the body and blood of Christ with all his benefits to their spiritual nourishment and growth in grace.”

Several attempts were made to harmonize the views of all on this question, but without avail, and many withdrew from their connection with the Lutherans and formed churches by themselves that were known as Reformed churches, or very generally as Calvinistic churches.

These Reformed churches soon spread not only over Continental Europe, but became firmly established in Great Britain. While agreeing in general principles, they had no real union and different creeds and confessions of faith became abundant. The American controversy led to the calling of the Synod of Dort in 1618, where the doctrines of the church were announced and the five points of Calvinism clearly defined, viz. : 1. Unconditional election. 2. Particular redemption. 3. Total depravity. 4. Irresistible grace. 5. The perseverance of the saints.

Notwithstanding this agreement there continued to be a growing individuality

among the churches, and many came to be known by different names, as the Presbyterian in Scotland, the Anglican in England, etc., etc., which while holding mainly to the doctrines and practices of the Reformed church differed sufficiently as to be considered as denominationally distinct. The Puritan faction in England rose from a determination on the part of some to adhere strictly to Calvinism, and with the Puritans Calvinism came to New England where afterward were some of its ablest supporters, and nearly all of the so-called Evangelical denominations find their fountain-head in the church at Geneva.

While the Reformed church spread widely in European countries, it was in most parts obliged to succumb to the power of Rome, aided by the civil governments.

In the Netherlands, however, the people under the lead of William, Prince of Orange, stood up bravely for both civil and religious liberty; threw off the authority of Spain and secured their independence. By this means that portion of the Reformed church, known as the Dutch, was fixed on a firm foundation, and went with emigrants to various parts of the world.

The Reformed Dutch church agreed with the Roman Catholics as to the doctrine of the Trinity, and in the everlasting punishment of the wicked, but denied the state or condition of purgatory. It recognizes but two sacraments, that of Baptism and the Lord's Supper, and held as to these views differing from the Roman church. The general points of its belief or system of faith are set forth in the Heidelberg catechism, adopted by the Dutch and German Reformed churches in 1563, and in the Westminster catechism, that gives the best expression of the doctrines as they were received by Calvinists in Scotland, England and America.

The government of this church is in the main Presbyterian, but differs some-

what in different countries, being in some less demonstrative than in others. It admits of greater latitude of belief than the Roman Catholic or Lutheran, and while generally adhering strictly to its views does not refuse to co-operate with others in good works.

Immigrants to the United States from Holland brought with them their religion, and claim to have established here the first Protestant Church organization, the first day school and the first theological seminary on the continent. The Dutch formed an agricultural settlement at New Netherlands, now New York, as early as 1623. They brought with them no minister, but soon after two *Krank-besoeckers* or consolers of the sick were appointed, on whom also devolved the duty of reading the scriptures and the creeds to the people on Sundays. In 1628, came the Rev. Jonas Michaelius who organized a church and consistory with fifty communicants, now known as the Collegiate Reformed Church in New York City. With him came Adam Roelandson, a schoolmaster who founded what is now known as the Collegiate Church Parochial School.

Other churches were afterward established, and when the Dutch surrendered their province of New Netherlands to the English, there was on it five churches and six ministers.

From this time the growth of the churches was slow. The immigration from Holland almost entirely ceased, and the English brought with them Episcopacy, and the many advantages their government could confer. As the services in the Reformed church were until 1763 entirely in the Dutch language, it did not receive accessions from the English, and more to its disadvantage perhaps than all other causes, was unfortunate dissensions of two parties known as the *Coetus* and the *Conferentii*. The former, which was organized as an advisory body, demanded to be changed into a regular classis with educational institutions wherein their

youth could be instructed and proposed to for the ministry; the latter prepared to keep up the relations with Holland and to depend on ministers to be sent from there. This contention was healed

The peacemaker who united these two parties, was Rev. John H. Livingston, who fortunately conceived a plan of reconciliation acceptable to the classes at Amsterdam, and both parties of the



To the Honourable
RIP VAN DAM. Esq
PRESIDENT of His Majesty's Council for the PROVINCE of NEWYORK
This View of the New Dutch Church is most humbly
Dedicated by your Honour's most Obedient Serv^t W^m Burges

about 1771, but the war of the Revolution occurring soon after interfered with the prosperity of the church for a time.

church in America. This resulted in healing dissensions and in establishing an independent church in America with

power to organize superior governments and the establishment of a professorship of theology. This last was made a condition by the church in Holland and resulted in the establishment of the institution now known as Rutgers College at New Brunswick, N. J.

A general synod was formed and a constitution, prepared by Drs. Livingston and Romeyer, was adopted. This was founded on the canons of the Synod of Dort, and recognizes as judiciary, consistories, classis, the particular Synod and the general Synod. The consistory of each church is composed of the minister, deacons and elders who are usually sole trustees of the church property. The classis that meets twice a year is composed of not less than three ministers and three elders from at least three churches. This body presides over churches, has supreme government over ministers, examines the doings of consistors, and hears cases of appeal therefrom.

The particular Synod, is superior to the classis. It is composed of four ministers and four elders from each classis within its district, and meets annually. The General Synod meets every June. It has the supervision of the whole church, is composed of three ministers and three elders from each classis, and has all the power in church matters consistent with the constitution, but it can not change that except by consent of a majority of the classis.

In government the church is strictly Presbyterian. A liturgy is prepared but is only partly used; in most of the churches many of the forms of service being optional.

The services of the church have for many years been in English except in localities where the majority of the congregation are Dutch, as in the case in some of the western states, and recently the word Dutch has been omitted from the title of many of the churches, they being known merely as Reformed churches.

Members of the Reformed church in Germany, driven from their homes by persecution, settled in the United States, at first mostly in Pennsylvania, whither they were attracted by grants of land made them by William Penn. Thither came early in the 18th century 400 Palatines. Their first congregation was formed, and church built in Montgomery County, Rev. Geo. M. Weissner, pastor. In 1746 Rev. Michael Schlatter was sent from Germany to visit the various German settlements in America for the purpose of organizing churches, establishing schools, etc. He organized the first synod in 1747, but the growth of the denomination was slow. In 1793, the synod declared itself independent of the churches in Europe and asserted the right to govern itself and the German churches in America. The want of an educated clergy had been among the principal hindrances to the progress of the church which the establishment in 1825 of a theological seminary served in a measure to cover, as since that time it has increased in numbers, aided doubtless by German immigration. A system of theology, known as the Mercersburgh was promulgated by Dr. Nevins, a professor of the theological seminary located there and adopted by the Reformed German Church in America. It teaches that Christ had not two natures, a human and a divine, separate and distinct, but that his incarnation, glorification and divinity, were but the natural outgrowth and inevitable result of his perfect humanity. God, known to Prof. Nevins as the Universal life principle, is manifested in all the various forms of existence and imperfectly on the human race as a whole, but in Christ perfectly and through him ultimately in all his people, and he causes the soul on which he acts to grow into his very nature. The race was comprehended in Adam and his sin, therefore is the sin of the race. Christ, who had risen to the divine life took into union with himself our humanity with its sin and descended

to the depths of sorrow and pain. This was the atonement, and our humanity freed from Adam's sin was restored, elevated and made capable of growth to perfection. The church is the organ or instrument through which the divine human nature as it exists in Christ passes over to his people. While union with Christ is regeneration, regeneration is through the church. At the Lord's supper he is present in a peculiar way. Unbelievers who partake, receive but the outward sign, because they have not

the organ for reception of the inward grace, but believers receive both, and when the way is open for it to take effect this sacrament serves to convey the life of Christ into the person of the believer.

This system of theology excited much comment and considerable opposition, keeping the church in a state of uneasiness until 1879, when it was put aside and a declaration of faith founded on the Heidelberg catechism was prepared and generally adopted. L. A. R.

EVOLUTIONARY PROBLEMS.

MAN.

HOW man originated may well be claimed as the most important subject in evolution. In the first chapter of "The Descent of Man" Darwin suggests, as subjects of inquiry, the resemblances of man to vertebrate animals, such as the monkey, bat and seal in bodily structure, to wit, the bones, muscles, blood vessels and viscera.

These suggestions are true and simply prove that man, as to his physical organization, belongs to the vertebrate animal kingdom. But it by no means follows that he is the descendant by "natural selection" either of the monkey species now in existence, or of any, as he alleges, long since extinct.

In his efforts to trace human descent from the monkey this great observer has made some statements and drawn some conclusions which, to the common reader, appear to be inconsistent and not reconcilable to known facts. The monkey from which he claims human descent did not, as he states, belong to any existing species, but to a variety long since extinct, and differing radically from any now existing. A reference to his work on "The Descent of Man" will exhibit the subject in its proper light.

He says: "To form a judgment in reference to man, we must glance at the classification of the Simiadae. This fam-

ily is divided by almost all naturalists into the Catarrhine group or Old World monkeys." (T. D. M., 188.) The reasons given for this claim are "the peculiar structure of the nostrils and four premolars in each jaw." From the reasons thus given he alleges that "there can consequently hardly be a doubt that man is an offshoot from the Old World Simian stem, and that under a geological point of view he must be classed with the Catarrhine division." (Id., 188-9.) But he cautions his readers not to suppose that the early progenitor of man was identical with, or even closely resembled, any existing ape or monkey. (Id., 191.)

In reference to this fancied mode of human descent Haeckel, with that peculiar kind of self-assurance for which he is distinguished, alleges that "not one of the so-called man-like apes can be progenitors of the human race, but that such distinction belongs to a small branch of the Catarrhini long since extinct." (II. His Creation, 174.)

The inference from the foregoing would be, that early man descending by natural selection from the tailless Catarrhine monkey of the Eocene period was without a tail. Yet, strange to say, Darwin subsequently states as follows: "The early progenitors of man were, no doubt, once covered with hair, both sexes hav-

ing beards; their ears were pointed and capable of movement, and their bodies were provided with a tail having the proper muscles." (II. D. M., 198.)

Having thus reinvested man with a tail, the next step would be to show how he became divested of that interesting organ. But he leaves this very much in doubt, with the statement that "as those apes which come nearest to man are destitute of this organ its disappearance does not especially concern us." As to hair he inclines to believe "that man, or primarily woman, became divested of hair for ornamental purposes." (Id., 143-4.)

There are some queries in regard to this matter which it may be difficult to answer. How could a hairy woman, who had never seen a specimen of human nakedness, become desirous of getting rid of her hairy covering? Suppose a woman of a distant pre-historic period to have become desirous of nakedness, what process did she adopt to effect the change except that resorted to by some men of modern times in temporarily getting rid of their beards? The result would have been the same, in the new growth of coarse hair. The most natural conclusion is that if primeval human beings had been hairy it would be extremely improbable that any desire in man or woman could arise to get rid of it.

In his anxious desire to prove the descent of man from the supposed Catarrhine monkey Haeckel makes the following singular statement: "The process of development which led to the origin of the most ape-like man out of the most man-like ape must be looked for in the adaptional changes which, above all others, are distinctive of man, namely, upright *walk* and *articulate speech*. These two physical functions necessarily originated together, with two corresponding morphological transmutations with which they stand in the closest correlation, namely, the differentiation of the *larynx*. The important perfection of these organs and their functions must

have necessarily and powerfully reacted upon the differentiation of the brain and the mental activities dependent upon it, and thus pave the way for the endless career in which man progressively developed, in which he has far outstripped his animal ancestors. (II. His. Man, 299.)

This is the merest guesswork imaginable, and has not the slightest evidence in its support. How came any one Catarrhine monkey to desire to be more man-like than the rest of its species? Its habits, founded upon its instincts, were to walk upon all fours and climb trees; and for these purposes it was provided with limbs terminating in claws, and there is neither evidence nor probability that it had the least desire beyond it. It had before it no specimen of the so-called "ape-like man" to stimulate its efforts in that direction; and there is no reason, founded upon any known fact, to suppose that it had the slightest desire to improve its present condition.

In addition to this we are treated with the supposition that there was such a different action of the larynx as to introduce articulate speech, and this, too, without having heard a word uttered by a human voice; and to cap the climax, this upright walk and distinct articulation are assumed to have produced an enlargement of the brain.

Another point in this connection is worthy of consideration. If there be any truth in the natural selection theory, it is just as operative now as in the Eocene age. We know that a well-defined species of the Catarrhine monkey is now in existence and has been for ages past. Yet there is not a single instance known of the least indication of a new species evolving from that well-defined member of the animal kingdom.

From the premises the conclusion is certainly fair that the origin of man can not be accounted for by natural selection. How then is his primeval existence to be accounted for? On this point Darwin appears to have exhibited some

inconsistencies. In his "Descent of Man" he admits that he had probably attributed too much to the action of natural selection, in consequence of which he made some change in his "Origin of Species," in reference to changes of structure, but that if he erred in giving to natural selection great power, he had at least done great service in aiding to overthrow the dogma of separate creations. (II., D. M., 147-8.) If this had been the principal object he has certainly defeated it by the change referred to, which reads as follows: "It does not seem utterly incredible that by some such intermediate production both animals and plants might probably have been developed. Therefore I should infer that probably all the organic beings which have ever lived upon the earth should have descended from some one primeval form into which life was breathed by the Creator." (Origin of Species, 1870, supplement, 431.)

That is to say, assuming the Amœba to have been the lowest organic form, the life was breathed by the Creator into organic matter to produce it. According to this the Amœba would be a special creation; and the logical conclusion would be, that the next organic form of life was produced by a similar infusion into the Amœba, and so on by similar infusions into ascending organic forms up to and including man; and each new species in the ascending series would be a special creation.

What were the supposed characteristics of man in his assumed, early departure from apehood, under this theory, appear to have been matters of speculation in Darwin's mind. Hence he says: "With respect to the origin of the parental and filial affections, which appear to be at the basis of the social affections, it is hopeless to speculate; but we may safely infer that they have been to a certain extent through natural selection. (II., D. M., 77.) The substance of this, for example, would appear to be, that the love of the child for the parent is

due to natural selection. This presupposes a period in animal life where such affection did not exist. Suppose, at the present time, human mothers, giving birth to children, should be wholly destitute of any affection for them,—the result would be the speedy death of such children, and ultimately the entire extinction of the human race. It follows that if the first human mother had been destitute of maternal love, the human race would have perished in its infancy. Subsequently, however, he makes maternal love a matter of *instinct*.

It is a well-known fact that there are about twelve radically different races of man, such as the African Negro, the American Indian, the white races of Europe, etc. How are these differences to be accounted for if they are the descendants of the Catarrhine monkey? The differences between the Negro, the Aryan, the American Indian, etc., are very marked, yet because there are mental traits possessed in common, though in different degrees, they are claimed to be of the same original monkey origin by natural selection. He says: "Although the existing races of man differ in many respects, as in color, hair, shape of the skull, proportions of the body, etc., yet if their whole organization be taken into consideration they are found to resemble each other closely in a multitude of points." (II., D. M., 223.)

Again: "The American aborigines, Negroes and Europeans differ as much from each other in mind as any three races that can be named.

"Yet I was incessantly struck, while living with the Fuegians on board the Beagle, with the many little traits of character showing how similar their minds were to ours; and so it was with a full-blooded negro with whom I happened to be intimate." (II., D. M., 223.) He also cites Mr. Taylor and Sir John Lubbock, to the effect that there is a certain similarity between the men of all races in tastes, dispositions and habits.

It may be admitted that there is, to a

certain extent, a similarity in "habits, tastes, and disposition," between the different human races, but it does not necessarily follow that they have a common monkey origin. The most rational conclusion is, that the different races of men were created at different periods, by the inflow of life from the Creator, and the lowest in the scale was the first to appear and so on in succession to the highest.

It is true, there can scarcely be found among the higher races men of inferior brain structure and mental powers. But aside from the fact that there are no two things exactly alike, it must be taken into the account that sexual connections between members of the different races have, to a certain extent, been going on for ages past. As familiar examples we may refer the Mulattoes in the United States, and to the progeny of those western adventurers, who have indulged in polygamous marriages with the Indians.

The fact that the different races of men have so many things in common, such as similar customs in burying the dead, producing fire, shooting with bows and arrows, learning to count, etc. (II., D. M. 225), does not necessarily prove a community of ape origin. They do these things because they are men, and therefore in possession of an improving understanding, free from the limitations of *instinct*.

If the variety of the human races are from the common origin claimed by Darwin, there should be but one language in common, whereas there are as many languages as races. In reference to language, he quotes Bishop Whately to the effect that man is not the only animal that can make use of language to express what is passing in his mind, and himself adds—"In Paraguay the *Cebus-azara*, when excited, utters at least six different sounds which excites in other monkeys similar emotions." "With the domestic dog we have the bark of eagerness in the chase,

that of anger, the yelping or howling bark of despair, as when shut up, and of joy when starting on a walk with his master; and the very distinct one of demand or supplication when wishing for a door or window to be opened." (I., D. M., 52.) But these cries are emotional only, and are not in any way connected with articulate speech.

This is no doubt a fair exhibition of the brute language extended or improved by domestication. But when we come to man, in addition to a few emotional expressions, we find articulate speech capable to a high degree of expressing the thoughts of the understanding.

Articulate speech is peculiar to man, and there appear to be as many languages as there are different races. It is not an instinct, but is formed by each race to express its ideas in articulate sounds; and each separate tribe or nation may learn to speak the language of every other tribe or nation.

According to Darwin, each language has been slowly and unconsciously developed by many steps." (II., D. M., 53.) Such being the case it would be the fair inference that, if all the human races are from a common ape ancestry, the language should be, to a certain extent, uniform. Taking the Aryan race as a sample, English, French, German, Italian, etc., their languages possess a remarkable degree of grammatical similarity. Compare the languages of this race with those of the Negroes, American Indians, etc., and the differences will appear wide and radical, and lead to the conclusion that these races are from the influx of life into monkey ancestry at widely different periods: and producing first the inferior human races.

Darwin candidly admits being baffled to account for the differences between the human races, but resorts to sexual selection which he says appears to have acted as powerfully on man as any other animals. But he qualifies this by saying that he does not mean to assert that sexual selection will account for all

the differences between the races. (II., D. M., 240.)

One of the broad distinctions between men and animals is that the brain surface of the lowest man is largely in excess of that of the highest monkey. Prof. Fiske says that the "gulf by which the lowest known man is separated from the ape consists in the great increase of his cerebral surface with the accompanying intelligence in the very long duration of his infancy." (Des. of Man, 54.) If this were so, the longer term of the infant man might furnish some evidence for the conclusion here stated.

But the human infant starts with a brain more highly convoluted, and therefore with a larger surface; and his longer term of maturing would give him a much increased brain surface: and it is matter worthy of consideration how by natural selection the human infant could have obtained so highly convoluted a brain.

Could the imagined, long-ago monkey ancestor have got into such a profound fit of mental cogitation as to multiply its brain surface! In this connection it is worthy of consideration how natural selection could have produced from the monkey a descendant, which required a period of twenty-one years to come to full maturity, while the supposed monkey progenitor matured in a single year!

Another marked distinction between men and animals is *religion* arising from a belief in God and a future state of existence.

On this subject Darwin says: "There is no evidence that man was aboriginally endowed with the ennobling belief in the existence of an Omnipotent God. On the contrary there is ample evidence, not derived from hasty travelers, but from men who have long resided with savages, that numerous races have existed and still exist, who have no idea of one or more gods, and who have no words in their language to express such an idea." (II., D. M., 62.)

Again: "It is probable that dreams may first have given rise to the notion of spirits, for savages do not readily distinguish between subjective and objective impressions. When a savage dreams, the figures appear before him are believed to have come from a distance, and to stand over him, or the soul of the dreamer goes out on its travels and comes home with a remembrance of what it has seen." (I. D., 126.)

But how is it possible that an idea can enter the mind in dreams without some basis of truth? Undoubtedly dreams are various in their character. Some have a deeper ground than the mere reproduction more or less transfigured, of the daily experiences. Yet if man has life, soul, or spirit distinct from, though connected with his material body, then there would be nothing strange that the spirit should sometimes appear while the body was in sleep. The body alone is the material clothing or receptacle of the soul or life, and has of itself no vision external or internal. It is the soul or spirit which sees, and hence the fact that the spirit does not appear to the external vision, is evidence that it does not die with the material body. The conception of a spirit could never be formed if it had no existence, any more than a stream could rise above its fountain. The fair inference would be that a belief in spirits would be equivalent to a belief in a future state of existence.

Darwin quotes Tyler as showing clearly that dreams may have first given rise to these ideas. We learn from Sir John Lubbock that "The belief in a future state if less elevated than ours is singularly vivid among some barbarian races. The Deryeans believe that as we die such will be our condition in another world." The North American Indians, as Schoolcraft tells us, have little dread of death. He does not fear to go to a land which all his life long he has heard abounds in rewards without punishment." (Origin Civ., 248-50.) In fact it is difficult to find a race destitute

of some idea of a future state, and hence religion.

One of the broadest distinctions between the monkey and man is that the forelegs and feet of the former are the arms and hands of the latter. That Darwin was sensible of the importance of this very radical difference is evident from the following: "Man alone has become a biped, and we can, I think, partly see how he has come to assume his erect attitude, which forms one of his most conspicuous differences between him and his nearest allies. Man could not have attained his present dominant position in the world without the use of his hands which are so admirably adapted to act in obedience to his will." (I., D. M., 125.) The fact here stated is a strong illustration of creative design in the creation of man through the female monkey. But man without an enlarged brain—the seat of the operations of his will and understanding—would have had no use for the human hand, inasmuch as the material body is an external expression of the life; and hence this enlargement could not have been produced by natural selection from the monkey. Assuming the theory to be true, and regarding the vast and almost infinite distance between the brain, forelegs and claws of

the, assumed, Catarrhine monkey, and the brain, arms and hands of man would be literally immense. Yet with all the research in support of the theory of natural selection, not a single link has been found!

Darwin appears to have been sensible of this objection and attempted to diminish the force of it when he says: "In order that an ape-like creature should have been transformed into man, it is necessary that his early form as well as many successive links should all have varied in mind and body."

If natural selection under which there is a survival of the fittest has produced man without any other *modus operandi* of creation, the fair inference would be, that the continuance of the same cause would produce a being superior to man. That he is a subject of natural selection we are assured by Darwin, as follows: "Man tends to multiply at so rapid a rate that his offspring are necessarily exposed to a struggle for existence and consequently to natural selection." (I., D. M., 178.) We may, however, safely draw the conclusion that natural selection, without the intervention of intelligent creative design, could never produce man of the lowest order from the monkey. B. G. FERRIS.

OLD-TIME COURTESY.

There's nothing in the world like etiquette
In kingly chambers or imperial halls."

Byron.

NOT long ago two ladies were talking in an animated manner in the horse cars, when one of them said to the other, as though closing a discussion, "No, I still say I do not think there are many real gentlemen now-a-days. When we can describe one without using the expression, "a gentleman of the old school," I will modify my assertions, and endorse your views on the subject."

The words recalled to us a conversation we had heard with reference to an

incident which occurred in a horse car in the same city.

One evening in coming home from a concert a pleasant company were seated in the cars, and for a short time chatted merrily of the evening entertainment. Evidently they were two couple of young married people thoroughly acquainted with each other. After a while one of the gentlemen said to his friend, "Come, Harry, let us go to the platform and have a smoke," whereupon both arose without

even so much as asking leave of the ladies, took out their cigars, lighted them, went to the front platform, smoked for half an hour, then met the ladies as they stepped from the car and escorted them home. One of the spectators who discussed the occurrence with her husband, insisted that those ladies in her opinion were treated discourteously, while her husband argued that no disrespect was intended, that the escorts certainly appeared like gentlemen and probably would not have taken the liberty they did with any other ladies than their wives. He said the gentlemen had no doubt been driven with work that day, and had not had time for a good smoke, and he really saw nothing out of the way in their conduct.

But his wife remarked that their having no time to smoke had nothing to do with the question, and added that she liked to see ladies treated with old-time courtesy, and she did not believe that gentlemen of the old school could or would have allowed themselves that freedom and indulgence even when escorting their wives.

These two incidents set us to thinking and (aside from the physiological issues involved in smoking) questioning ourselves with reference to the courtesy manifested by the ladies and gentlemen of to-day when compared with that of the days of which we hear so much, and the truth must be confessed that in our opinion there is not in these days the deference to and courtesy toward ladies shown as was manifested in olden times, and yet we can not feel that the lack of it is evidence that they are held in less esteem than formerly.

In older towns and cities where people take life slowly and pleasantly, we still find all the courtesy and punctilious manners of their ancestry observed by the intelligent and well-bred classes; but, influenced perhaps by the larger freedom of our great cities, and the more informal manner of living, people generally are not so punctilious, and re-

gard as mere form and unnecessary, attentions which to many are not only agreeable, but the lack of which are incompatible with their ideas of true courtesy.

As there certainly is an innate quality in many persons as discernible as unassuming, which distinguishes them as those who have been trained from childhood to courteous manners, how important it is that all our young people should be taught to be thoughtful and courteous in what they consider little things, and that mothers should require their children to be as polite at home as among strangers, and in general society.

It is painful to notice in many families a lack of courtesy and politeness on the part of husband and wife in their manner toward each other, and on the other hand, most delightful to see each member of the family circle treating every other member with true politeness, and the parents evincing at all times, in manner and speech, the love and esteem in which each holds the other.

On this point it has been truly said that children almost invariably follow as their parents lead. Their good breeding, their politeness, courtesy, respect and affection are largely patterned after the example of their parents. If the mother shows by her daily life that she looks up to the father with loving deference as the head of the family, and manifesting unmistakable pleasure in seeking his comfort and assisting to carry out his wishes, the children will, in a large degree, follow her example.

If the father invariably treats the mother with respect and courtesy quite as noticeable as he shows to his most esteemed guests, listening to any remarks or wishes of hers with deference, be sure the children will follow his lead.

On the other hand, if they habitually notice that she meets him with impatience and repression, heedless of any of his wishes, or that he meets her with indifference, near allied to rudeness or dis-

courtesy, ridicules or sneers at her remarks, or passes them by as if not worthy of notice, does any one imagine that the children, even the youngest, will not see this, and from such daily examples soon practice what they find is so common?

An elegant Englishman writing on the subject, after insisting that all should be treated with every mark of civility and good breeding, adds, "It is much more so with regard to women, who, of whatever rank they are, are entitled, in consideration of their sex, not only to an attention, but an officious good breeding from men. Their little wants, preferences, antipathies and fancies must be officiously attended to, and if possible, guessed at and anticipated, by a well-bred man.

"It is astonishing to me that anybody who has good sense and good nature, can essentially fail in good breeding. Good manners are to particular societies, what good mortals are to society in general—their cement and their security. Mutual complaisances, attentions, and sacrifices of little conveniences, are as natural an implied compact between civilized people as protection and obedience are between kings and subjects. For my own part I really think that, next to the consciousness of doing a good action, that of doing a civil one is most pleasing, and the epithet which I should covet the most, next to that of *Aristides*, would be that of well-bred."

Several instances have of late been cited to prove the assertion that ladies are not treated now-a-days with the civility formerly manifested toward them, and that they themselves are to some extent responsible for it. One instance was the custom of gentlemen when riding of saluting ladies with their whips.

The critics says, nothing in the way of a salutation can be more "free and easy" than lifting the whip to the hat; but we are free to acknowledge that men are having things their own way, with

free and easy women, so entirely that they are forgetting what they owe to women who are worthy of their respect.

The true gentleman at heart may from want of instruction, omit to lift his hat when he passes ladies to whom he has not been introduced, on the staircase of the hotel, in a corridor, and in like places, but he will not be wanting in this mark of respect to those whom he does know, nor will he lift his "stick" to his hat in passing.

We are confident that the thoughtful and courteous manners of gentlemen are far more agreeable and really flattering to ladies than the most lavish words of praise; and if gentlemen appreciated the truth of that assertion we should soon see a change for the better in this regard.

The "Easy Chair" in *Harper's Magazine* discussed the subject recently, and, on the matter of smoking in the society of ladies, expressed our own thoughts in the following extract. The editor thinks the practice "might well be cited as a striking illustration of the decay of manners." He writes:

"There are *preux chevaliers* who would be honestly amazed if they were told they did not behave like gentlemen, who, sitting with a lady on a hotel piazza, or strolling on a public park, whip out a cigarette, light it, and puff as tranquilly as if they were alone in their own rooms. Or a young man comes alone upon the deck of a steamer, where throngs of ladies are sitting, and blows clouds of tobacco smoke in their faces, without even remarking that tobacco is disagreeable to some people. This is not, indeed, one of the seven deadly sins, but a man who unconcernedly sings false betrays that he has no ear for music, and the man who smokes in this way shows that he is not quite a gentleman."

Would it not be well for us all to be more thoughtful with reference to our conduct and influence, so that we may bear testimony to modern as well as to old-time courtesy of manners? EX.

A SUNSET AT ENSENADA.

THIS rapidly growing town of Lower California evidently possesses many attractions, not the least of which is the phenomenon of the declining sun, if we must believe all our correspondent, W. H. H. Russell, Esq., who has been traveling in that country, tells us. He thus describes a sunset that it was his privilege to behold :

"We stood upon a mighty boulder, which capped one of the prominent points back of Ensenada ; the majestic mountains were silent and ominous ; the restless old ocean was foaming and roaring along its rugged shore as if angry with itself because the lofty peaks would not bow to its mighty pulsations. The pelicans and sea-gulls gracefully sailed through the air like some peaceful messengers from the regions above ; the curlews and snipes twittered along the white sands of the beautiful bay as if suddenly summoned to the mystical retreats of a fairy land. The face of Nature put on a somber look as if to frown upon the transitory efforts of old Sol to quit the scenes and turmoils of the day for the solemn quietude of night.

The full-faced moon peeping over the

distant mountain seemed to whisper a soft farewell to its golden rival ; the silvery stars from their imperial heights, twinkling in the boundless realms of space, sang out with one accord the harmony, beauty and grandeur of the scene.

The lovely bay of Todos Santos in her silvery sheen of murmuring wavelets, lay like a queen of beauty in a landlocked and mountain-ribbed casket. Across and beyond her tremulous bosom old Punta Banda, lifting his sun-kissed brow, looked like a sentinel of the prehistoric past, and away to the right the islands of the great Pacific, with their craggy forms, rose out of the water like some monsters of the deep, as natural guardians of the peaceful harbor. And now the panoramic view begins to change ; softly the golden tints fade from the valleys and the summits ; the mantle of twilight enfolds their barren slopes.

The crimson glow in the western horizon flushes the lingering clouds with beams of gold, and the mirrored reflector of the world's great heat sinks in the bosom of the ocean.

ORSON S. FOWLER.

ON the morning of August 18th, Prof. O. S. Fowler, to whose early endeavors American progress in the sciences relating to human nature owes much, was summoned to join that innumerable throng that has passed beyond the confines of earth.

In early life he showed a strong inclination to the profession of the ministry, but when the gospel of Phrenology, preached by Spurzheim, found its way to the institution where he was pursuing his studies, at once his soul thrilled with a sense of the great and beneficent truths it announced, and ere long he threw himself with all the earnestness of a frank and susceptible nature into the

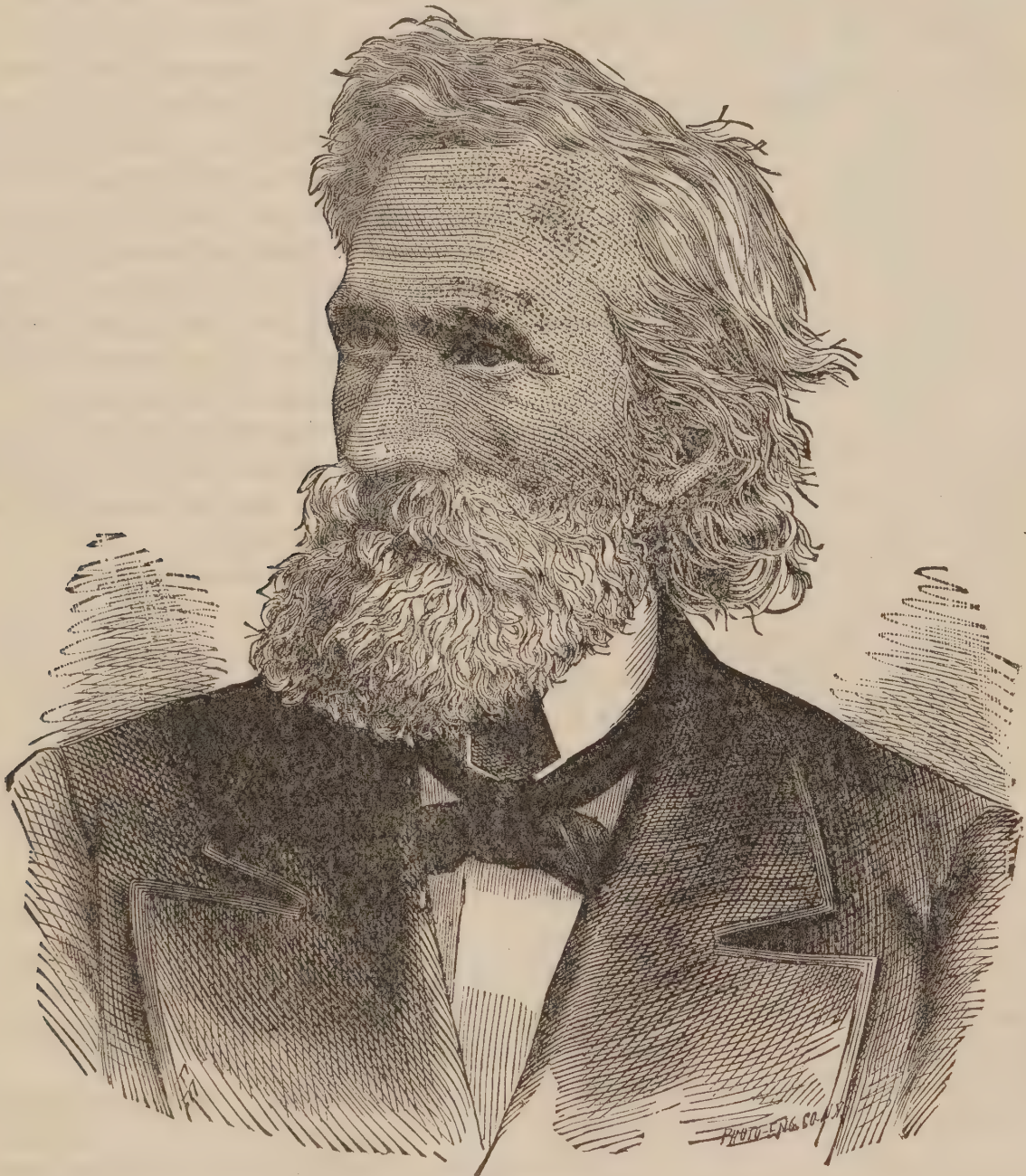
new field that was so suddenly opened, and in a few years he had overcome a thousand obstacles and won an eminent name.

He was born at Cohocton, Steuben County, N. Y., on the 11th of October, 1809, by which it is seen that he was nearly seventy-eight years old at his death.

It is interesting to note that he was the first child born in the township, and that peculiarity of his birth may be said to be typical of his career, for pioneer-like he was to continue for many years at the head of the advancing cause that he advocated with such enthusiasm. His parents were prominent among the

residents of his native town, but not possessed in a large measure of this world's goods, so that Orson was compelled to work his own way in a great measure. He paid for his course in Amherst College mostly by what employment he could obtain while there, and from that time to the close of his life his

Caldwell, Woodward, Brigham, John Pierpont, Rockwell, S. G. Howe, Horace Mann, and other eminent men, early gave in their adherence to the doctrine of Phrenology, and each in his sphere employed its edifying principles, but O. S. Fowler, fresh from college, and his brother Lorenzo, with their youthful



ORSON S. FOWLER.

career was marked with a rare independence, and the spirit of a ready, thorough-going worker. With the approach of age and threatening infirmities he did not relax his work but seemed to feel greater need for diligence, preferring "to die in the traces" rather than to retire from a course of life that had become habitual

ardor enlisted in what they believed to be a special message from the Divine, gave themselves entirely to its dissemination. The time was propitious, the seed already sown by Drs. Caldwell and Spurzheim had taken root, and the people who had heard from them, or of the work accomplished across sea by teachers of the "new philosophy," were eager to

hear men who dealt with its principles in that practical manner that appealed to their individual experience, and enlightened them as to the sources of mental improvement.

The theories that George Combe presented, with his wonderful power as a logician, Prof. Fowler brought down to the comprehension of the ordinary, every-day intellect, and gave them point and application by well chosen examples from any company that was assembled to hear him. Thus he became a pioneer American phrenologist, and for years his appearance in any city was hailed with pleasure by a throng of seekers of self-knowledge.

He was not only a lecturer, but in his seasons of retirement from the platform he was almost constantly employed in writing. In 1838, in connection with his brother Lorenzo, he commenced the publication of the *Phrenological Journal*, which proved a very important ally in the dissemination of the new science of the mind. It should be mentioned that the venerable Dr. Nathan Allen, of Lowell, Mass., was associated in the editorial management of the *Phrenological Journal* at its start. Besides his work on the *Journal*, which continued until his separation from the publishing house of Fowler & Wells in 1855, which, even at that early time had acquired a wide-spread reputation, Prof. Fowler published a goodly number of volumes relating to his specialty and social physiology, most of which have had an extensive sale. Among those that have good claim for more than passing mention are: "Memory and Intellectual Improvement," "Self-Culture and Perfection of Character," "Physiology, Animal and Mental," "Matrimony," "Hereditary Descent," "Phrenology Proved, Illustrated and Applied," and "The Self-Instructor in Phrenology." Of these it is no exaggeration to say that millions of copies have been sold.

It was in 1843 that Samuel R. Wells united with the brothers Fowler and the

following year the firm of "Fowler & Wells" was formed, which remained intact until 1855, when Prof. Fowler retired the firm and devoted himself to the lecture field on his own account, in which he spent about ten months of each year, traveling widely, especially in the West and South, and he had just finished an extended tour when death closed his career at his home in Dutchess, N. Y., after a brief illness.

The immediate cause of Prof. Fowler's death appears to have been a severe chill or cold. He had been working in his garden at Sharon, one warm afternoon, and became heated, and then sat down to rest in the shade without putting on his coat, and it is thought that exposure to a current of air while perspiring freely set up so severe a congestion that his system could oppose its progress. The same energy that characterized his mental life was pronounced in his physical to the last, as this interest in his surroundings manifested.

THE VISION OF THE SKULL.

Within a dream I looked upon my skull
 Fleshless and white—I marvelled why
 'twas so—
 Leaving quite plain its convex, high or
 low,
 Once with nerve tissue and thought fibre
 full.
 Some day shall I thus look upon my
 past,
 Seeing the whys and wherefores of that
 time—
 The causes predisposing mind toward
 rhyme—
 Toward imagery immortal, grand and
 vast?
 Shall I there see the shackles of the mind,
 Those skull-chains, which the brain has
 on the soul,
 Those birth-gifts, which do keep it in
 control,
 Which limit work and aspirations bind?
 Ah, shall I learn that, be we quick or
 slow,
 To knowledge by an effort must we
 grow?

EDWARD CREAMER.

COMMENTARIES ON WHAT I READ IN THE SEPTEMBER NUMBER.

EDITOR JOURNAL.--I feel impelled to make some remarks on certain of the articles in your last number. Written as they are by different persons of different minds, I am nevertheless struck with the seeming agreement in most of them, in one particular. Mrs. E. O. Smith, for instance, says:

"We must, if we would be true to what is best in our manhood, learn to stand alone. This everlasting cry for sympathy and appreciation is the ultimate of selfishness. * * *

"Better, ten thousand times better, seize upon some beneficent good, even at the risk of all suffering, than live an irresponsible, selfish life, with only self for its centre."

Quoting next from Mr. James' article, so replete with the best of instructions, and which I wish could be copied into every paper of the land, he says: "Be free socially, that is do right, even though all society should find fault with, condemn and even ostracise you . .

. . . Still many people are far from being socially free. Men dare not do right often for fear of what society will say."

In the article "The Basis of Industrial Equality," *every word* of which is true, this in particular seems to agree with quotations from the other articles: "An independent class must be a free and equal class." Now how these quotations seem to cut up by the roots what Mrs. Charles Edward Anderson specifies as the "natural and legitimate duties," of which an important one is, "to make our persons beautiful and attractive," and "to understand perfectly the laws of adaptation in costume." Ah, me, has Mrs. A——, *ever* been thrown upon her own resources for subsistence, with never a moment's time to give to the beautifying of the person, and the frivolities of dress, that she thus advises a young girl to spend the time given her to make herself useful and a blessing to the world?

It seems easy to believe that Mrs. A—— has always had a good, easy lot, so exceptional in its freedom from care that her mind has seldom been turned to the higher interests of woman. She says she has "prayerfully" endeavored to train her young daughter, and we must therefore conclude she is a believer in the Bible. Has she ever pondered the words of our Savior in reply to the question of the Sadducees in Luke, XX chapter? Has she pondered the fact that he never married; that his chosen and dearest friends were the *single* sisters and brother of Bethany? since she so insists upon the "right and natural," and that women should be governed by their "instincts." The Scriptures tell us that men go astray as soon as born, and speak lies. *This* may be an "instinct"—is it to be followed the same as their instinct for marriage, or to be put down and conquered? Is it not barely possible that we all have "erred not knowing the Scripture" where we insist upon marriage for all women, and men? Nowhere does it exalt marriage to a sacrament. Christ says a man shall forsake all for his wife, "and they twain shall be one flesh" not spirit; evidently it is only an institution for this mortal life, ceasing at death. As such regarded, why advise all young women to look upon it as so much better than a useful occupation, masculine though that may be, and pursued in a single life? Why insist that a woman can only be happy by confining her sympathies to one, instead of letting them flow out to all who need help?

To do this, to be sure, she has to count the cost. It requires sacrifice and a cutting loose from "society" laws. But I believe as Mrs. Anderson admits, "that there is a disturbing element" that will work too, until all this matter is rightly adjusted. It may be easier to continue on in the old way of the "vine and oak," shirking our responsibilities, but, Maggie and Ruth, if these desires to

be something besides dolls and playthings have been given you, believe it is for something, that you are to be of use in the world and a noble example to others. I, too, have prayerfully sought to educate daughters; but never in the arts of dress and making attractive the person, only insisting on the dress being healthful and ministering to health of body, and rightly, I think, concluding that if they married a healthy body would be a better gift to their husbands than the whitest hands, the loveliest face and a fashionable figure.

Oh, Ruth, how could you manage that engine! Why I look with positive awe upon the man who moves them at his will, and to me all machinery is a sealed book, not comprehending it all, after the clearest explanations. All the same I believe a woman may do whatever she is capable of doing well, and, moreover, should receive the same remuneration as a man; and when that time shall come, as come it will at last, she will no longer throw herself away in a marriage to be supported merely. No doubt, too, if women take up these occupations there will be a certain strong, self-reliant manner. The softness of a dependent creature, sweet because only ministered unto instead of ministering out of knowledge and strength of will, will be wanting, but never, as Mrs. Anderson says, "acquired at the cost of the truest and holiest attributes of womanhood."

Many thanks to the editor for his contribution to this subject in his article, "A Woman Engineer." We recall some of his words on this subject of women being forced into these occupations for a livelihood, and how he deplored that they ever should be so. Now, who can say these things are not ordered to bring another order of living. That slowly the women are becoming stronger, more self-reliant, less dependent, the men taking on more of gentleness, patience, feminine traits, if you please, so that two sexes may come in this life to be helpful as brothers and sisters, and

so be more prepared for the life where they "neither marry, or are given in marriage."

I suppose Mrs. Anderson would say we were going back to the dark ages should the time come when a woman, like Deborah, should judge a great nation, and more wonderful still a man when sent to war, should refuse to go except she go with him, a married woman, too. There must have been strength of intellect as well as strength of body to meet what was required of woman in those days. Small time surely then for attention to dress and fashion! How glad I am that "the fashion of this world passeth away," that sometime women will be emancipated from its thralldom. What might they not have achieved if good and great things had a tenth of the time spent in elaborating dress been otherwise improved.

COUSIN CONSTANCE.

THE MISSION OF BEAUTY.

The Lord loves beauty, he divinely made it;
For all his children 'tis a benediction;
And yet its loss is not a sore affliction.
If like a fragrant flower a blast may fade it,
Or like the bow in heaven, a cloud may shade it,
Its brief existence is no interdiction
To its charm; mem'ry sweeps away restriction,
We see it still as nature first arrayed it—
The soul-lit eyes the cheeks of radiant roses
The smiling lips make all the world seem brighter
When sorrow with its shadow interposes;
Sweet pity, shown on faces fair, makes lighter
The crosses borne on flinty roads by duty;
And such a burden gives the bearer beauty.

GEORGE W. BUNGAY.

Men who have by their own exertions acquired fame, have stretched out their hands and touched the public heart. Men who win love do their own wooing, and I never knew one to fail so signally as one who had induced his affectionate grand-mamma to speak a good word for him.



HEREDITY.

Goethe says: "Strive to understand thyself and to understand all things besides." A good thought; at least the man who understands the laws that govern his being is better equipped for the battle of life, which must end in the survival of the fittest. Among the most important of these laws is that of *heredity*, a law by which all things endowed with life tend to repeat themselves in their descendents.

Both in animal and vegetable life we find this law of transmission extending over all the elements and functions of organism, to its external and internal structure, its grades, its special characteristics, and all its modifications. This subject pertaining to animal life may be considered under two divisions: the *physiological* and the *psychological*.

Physiological heredity determines the size of bones and organs, qualities of nerve tissue, and proportions of the nervous system, general dimensions of the brain, and development of its localized organs.

Man is regarded as an organism, and physiology teaches us that every body is an aggregation of multitudes of cells, each of which has a vitality of its own, possessing the essential properties of life. Mr. Darwin's theory is that each cell reproduce itself. Then, by a force existing in each nerve-cell, *these* cells repro-

ducing themselves, impart their own special characteristics to the progeny, and thus gives mental heredity.

The physical exerts a permanent influence upon the moral and mental by means of infinitesimal but constantly renewing acts; there is a necessary correlation between body and soul, and thus a permanent physiological state implies a correspondent psychological state. Hence it follows that the moral and the intellectual qualities of a person are as much dependent on physiological as are the vital instincts. For the body and the mind are in such close relationship that congenial habits of the body are sure to be connected with congenial habits of the mind.

The philosophy of the law of psychological transmission is found in the fact that the mental states depend upon the organic conditions of the *brain*. Scientific experiments with drugs lead us to anticipate such a truth.

For example, we can suspend the action of the mind for a time by choral or chloroform; can prevent them producing artificial delirium by administration of large enough doses of belladonna and Indian hemp. The mind being subject to such physical conditions it seems but reasonable to suppose that the condition of nativity should be likewise operative in modifying its developments he-

reditarily. "We must consider each human being as a microcosm, made up of multitudes of organisms, capable of self-production, of inconceivable minuteness, and as numerous as the stars in heaven."

By the force and life of these cells is transmitted mental constitution as well as vital dynamics, which accounts for acquired habits as well as original constitution being hereditary.

In no place can the ills of life be avoided more than in the proper selection and right adaptation of conjugal mates. We can not overestimate the importance of proper selection in temperament, the existing difference in quality of constitution, mental and physical. Emerson says: "We are not very much to blame for our marriages; we live in hallucinations." But, when we remember that the laws of heredity are changed with the destinies of mankind, it becomes of the highest moment that the contracting parties to marriage should be possessed of that physical and mental health which promises the well-being of the offspring. The precocious and unbalanced development of brain substance and nerve force in the over-educated children of the present generation suggests a question of painful interest to the philanthropist concerning the probable evolution of nervo-cerebral types of humanity, which will be affected with the disease and pain already more than foreshadowed in the terrible neurasthenia of the present.

Resemblance at once betrays parentage; it may be manifested in physical proportions, and color of the eyes and hair, and in the countenances; but more especially in innate characteristics. How often do we recognize the tone, character and very manner of friends in the conversation and conduct of their children; the same tendencies to look at things from certain point of view, and make the same mental combination; in short to entertain the same *ideas*.

This is apparent where children are educated away from home. They will

display the same mannerism noticeable in their parents; or, if left orphans, will astonish the friends of the family by manifesting little peculiarities of habit of either parent.

Cases very remarkable attract our attention almost daily, and we at once recognize ideas as innate, which are so obviously determined by the forces of hereditary transmission. Observe that a child has ancestors on both sides, for three successive generations, noted for heartlessness, and you may risk a thousand dollars to one that no possible training will develop delicate sympathetic sensibilities in him. For, it is just as certain that mental powers, honorable or dishonorable, mental idiosyncrasies and peculiarities are part of our inheritances as the *color* of our skin.

Physical environments and education produce modifications of hereditary tendencies, in the course of time, we admit. Leibnitz said: "Intrust us with the education of the people, and in less than a century we will change the face of Europe," but the influence of education is variable.

Carlyle says "civilization is only a covering beneath which the savage nature of man burns like the infernal fire." Education is often simply a veneer, which may break out on the slightest shock.

We have heard it said, it requires three generations to develop a natural, successful glassblower. Why not a mason, a doctor, or a lawyer? It does, and has been observed so for the highest attainment. The father and grandfather of Beethoven were musicians, as well also Mozart's father, brother and sister.

Erasmus Darwin, a physician and author of "Zoonomia," had two sons, Charles and Robert, who were physicians of note, and his grandson Charles, wrote the "Origin of Species." The Bach family for 200 years produced artists of rank, among them twenty-nine musicians.

Length of life is a result of a principle of vitality received at birth, and life insurance companies take advantage of this principle, and inquire of the longevity of the ancestors of their candidates. Physicians in determining the cause of disease always give preponderance to hereditary predispositions; and our criminal lawyers bring forward the history of the accused's ancestry to prove him responsible. We all know how alcoholism is transmitted, and how many who have that weakness in the blood strive against it in vain. So also with insanity, gluttony, avarice, gambling, suicidal and homicidal mania, and all criminal characteristics, cerebral infirmities produce psychic anomalies leading to crime. People must be educated to this. They should know that mankind are not what they are trained to be half so much as what they are *born* to be; that a good education amounts to very

little for such as have not inherited something good to *educate*.

That person is not well informed who does not know all are not born equally feeble or equally depraved, and if he will give attention to the subject and is not too prejudiced for fair investigation, he will soon become convinced that hereditary influences furnish all or nearly all the difference. In these days of agencies, and measurements of force with utilitarian ends in view, this is one of the questions which demand consideration by all. Certain it *is* that the highest possibilities of moral, mental, and physical culture do not exist in the supernatural regeneration alone, important as that is, but rather in the organized constitutional uplifting of the elements within humanity, upon which grace works, and out of which must be shaped the best specimens of redeemed men.

DR. L. L. YOST.

MRS. SMITH'S WAY.

ONE evening when Mr. Smith came home from work, he found his wife sitting alone in their cozy parlor that always presented the same neat and tasteful appearance; some work had fallen idly in her lap while her chin rested on her hand and she had become so absorbed in thought, that she heard not the opening of the door when he entered.

"And what has put my Brownie into such a brown study that she has neither eyes nor ears for things of time and sense?" inquired Mr. Smith after standing in the doorway for about two minutes watching his wife.

"O, Ned," exclaimed Mrs. Smith, starting up from her reverie, "I never could be a missionary, never." "Well, I am glad to hear you say so," said Mr. Ned Smith, seating himself beside his wife while a broad smile shone over his countenance, "I would be sorry to have you leave me here alone, I assure you,

and I have no intention, myself, of going off to some distant clime to work among the heathen."

"Ned, you may laugh at me if you will; you know I didn't think of heathen in foreign lands at all; but I do feel sorry for the people about us who are daily killing themselves."

"Dear me!" ejaculated Mr. Smith, "who is committing suicide now?"

"Our neighbor Mrs. Wilkins, and many others beside," soberly responded Mrs. Smith.

"Now you speak in riddles," said her husband, "I do not fathom the depth of your meaning."

"It is only this, Ned; I am saddened at the thought of people working and worrying so over trifles."

"Why, Brownie, do you not think trifles make perfection! and perfection is no trifle."

"Ned, I wish you would be serious for once and listen to what I say."

Mr. Smith drew on a long face and said, "Now I am all serious attention with a mind wholly yours."

"A man should have a mind of his own," was the saucy retort. The mischievous expression came again to Mr. Smith's eyes as he replied, "My mind is yours and you are mine; therefore my mind is my own. Now, Brownie, I am going to be as sober as a judge and listen most obediently while you relate the cause of your sudden attack of profound meditation."

"Well, this afternoon," began Mrs. Smith, "I was out calling on our neighbors, and went, first, across the street to Mrs. Wilkins, and found that personage lying down completely exhausted from overwork. She does all her own work, and with their large family that is no light task at the best. She is by nature a strong woman, energetic and industrious, priding herself on how much work she can do in a day. That, you know, is different from me, for I try to accomplish a good deal by doing just as little as I can."

"I understand just what a sensibly lazy wife I have," said Mr. Smith, with his face long drawn.

Brownie continued, "I had conceit enough to think myself able to instruct her in my way of doing, and to convince her of the truth that 'whoever might be better employed is idle.' Yesterday she put a large washing out on the line, and when I went over to-day she had just finished ironing a great pile of clothes, and was lying down from sheer exhaustion."

"And what was extraordinary in that?" asked Mr. Smith, "I have seen my Brownie's white hands moving swiftly over the ironing board."

"But my hands are not all hard and roughened by drudgery. I think my hands and head are the more easily kept clean by wearing gloves and cap when doing sweeping and such kinds of work."

"And perhaps Mrs. Wilkins isn't so

fortunate in having a kind, considerate husband like Mrs. Brownie Smith."

"Of course not," was the emphatic answer, "and neither has Mr. Wilkins a wife so awfully wise as Ned Smith has. I esteem ourselves highly enough to be very self satisfied, but that isn't doing good to any one else."

"Oh, you want to be out performing some great public work, ambitious to be a home missionary or something of the kind. I am becoming enlightened now," and the smile spread itself over his face again.

"I had no thought of missioning at home or anywhere else," replied Brownie with some spirit, "but my afternoon's experience made me think what a difficult work missionaries had to do, and I never could have faith and patience to work a reform among people's prejudices. It does seem to me that good, practical sense is one of the great needs of the times. I am not so strong as Mrs. Wilkins, yet you have never seen me day after day exhausted by overwork. I manage my work while Mrs. Wilkins' work manages her; that is the difference.

"I told her that when I had a large ironing to do, I did not try to iron all in one day; and then such articles as sheets, tea towels and the coarse undergarments were only put smoothly through the clothes wringer, when washed, then thoroughly dried, folded and put away for use. I think they have a fresh, sweet, clean smell, that they lose by being dampened and ironed. But Mrs. Wilkins looked shocked at such proceedings and said her conscience wouldn't rest easy if she left so much as a rag without every wrinkle ironed out of it, and then she couldn't feel comfortable until her work was all done up and out of the way. I wanted to say that I, too, would have a troublesome conscience if I daily injured my health by unnecessary work, but she looked so tired and careworn that I hadn't the heart to be cross with her,

and so I talked cheery nonsense until she said she was glad that I had come in, for it had livened her up a bit.

"I next went across to Mrs. Dean's and there found another tired, worn-looking woman, all flurried and flushed over the cook-stove, baking cake and mixing wonderful concoctions.

"Mrs. Dean boasts of her good cooking, and has her table spread with dainty, delicious dishes, rich and unwholesome, that tempt the daily eater on to sure dyspepsia, and there is a perpetual howling in that family with some ailment or other."

"O, well, Brownie, the public has no idea how you starve your family with your ideas of plain living," put in Mr. Smith.

"Yes," said Brownie, "we are starved into good, sound health by eating plenty of plain, wholesome food. Our table doesn't groan under loads of indigestible pastries, nor are we groaning around with dyspepsia or other disease."

"Brownie," said her husband, "when I look at you I am reminded of the village schoolmaster in Oliver Goldsmith's 'Deserted Village;' —— "And still the wonder grew that one small head could carry all he knew,"—and ever since our wedding day there has been no limit to my pride and wonder when I think of being the possessor of the wondrous one small head of my wife."

Without heeding this remark Brownie continued, "I afterwards went to Mrs. Gray's, and she, as usual, was busy sewing, and I felt inclined to break out in a general tirade against the fashions, for those little girls of hers must be ruffled and tucked and flounced until they look like so many puffed poppinnies; she gives so much time and thought to dress, her chief interest in life is fashion. When she enters heaven her first inquiry, I think, will be to know how the angels dress. I don't believe she has read a single book through since she was married; she finds no time for recreation that every

one needs; and what pleasure there is in such a life I don't know."

"We shouldn't live for pleasure alone, Brownie," said Mr. Smith. "And good there is in it none, I'm sure," was the reply. "She was worrying over the approaching house-cleaning time. I told her how I economized in that by not having the whole house covered with carpets; that I liked best to have the upstairs bed-room floors either painted or oiled, with a rug or two in each room; it was a saving of much heavy work and a much better way to maintain cleanliness. I liked to feel that the rooms were always pure, clean and comfortable. Mrs. Gray merely replied that she supposed I had my way and she had hers. I don't seem to have a knack of convincing people of the better way; and I can not understand why, they will spend their time in useless labor, like stepping on a perpetual treadmill, always going but never getting to any real good that is to be enjoyed and done in the world. So few persons, it seems to me, economize their time and strength, so as to get the most out of their short lives and attain to the full extent of their capabilities of enjoyment and usefulness that I would think myself happy if I could but persuade a few individuals to adopt our beautifully simple way of living."

Mr. Smith looked kindly upon his wife and said, "Reforms move slowly, Brownie, and some, having seen our good works, may in time, be led to see and accept the beauty and good that is to be found in our way, and find in life more that is healthful, useful, and all the year round live in the enjoyment of a more jolly genial-heartedness. At any rate, example is said to be stronger than precept, and we need not make ourselves the less happy because our neighbors may happen to persist in their way of enjoying all the discomforts they can find in life, while we take pleasure in all its comforts secured to us by our way of doing."

LISSA B.

THE POSITION TAKEN DURING SLEEP.

A very large number of adults form the habit of sleeping in one particular position, such as lying upon their right or left side. A smaller number sleep upon the back. Some people sleep with the head greatly extended; more often it is flexed considerably upon the trunk. Many must have the head greatly elevated; others can only sleep with the head very low. Some observations made by Dr. G. Nosovitch (*Wratsch*) upon 235 soldiers showed that 37.5 per cent. slept upon the right side, 23 per cent. on the left, and 6.5 per cent. on the back.

It has yet to be determined whether any particular harm can come from sleeping in a certain position which the individual unconsciously assumes. A popular belief exists to the effect that the liver, being a heavy organ, tends to press upon the other abdominal viscera when a person lies on the left side. At any rate, more persons, probably, sleep on the right side than on the left, as experience and Nosovitch's statistics show. The author in question believes, also, that the posture in sleep influences the extension of a bronchitis. He found, for example, that in the 235 cases referred to, all of whom had this disorder, in 97 it was left-sided, in 72 right-sided, and in 66 on both sides. He thinks that the preponderance of the bronchitis on the left side was due to the fact that there was a greater expansion of this side dur-

ing sleep, and, consequently, a greater ingress of cold air or of the morbid particles causing the disease.

Some writers have thought that the position in sleeping has an influence upon the passage of feces through the colon, the position on the right side being especially unfavorable to emptying the colon. Repose on the left side, on the other hand, favors the gravitation of feces from the transverse into the descending colon, and is, therefore, to be preferred by those suffering from habitual constipation, so Dr. J. S. Jewell says.

A recent writer has argued strongly for the view that the head should be lower than the feet during sleep, and he claims that more perfect health and greater longevity will result from such approximate topsy-turviness. The contrary position, with the head and trunk considerably raised, sometimes relieves cramps in the legs. It is well known that some chronic nervous affections, more particularly nocturnal epilepsy and some forms of insomnia, are sometimes benefited by sleeping in a partially erect posture.

It appears, therefore, that the posture during sleep is a matter deserving of some attention from physicians, and that some actual therapeutic results may be obtained by looking after its details.—*Med. Record.*

INDICATIONS OF DISEASE IN INFANTS.

The following are some of the more marked symptoms by which the intelligent and watchful parent or nurse may obtain a fair idea of the condition of a sick infant, as to diseases that are common with children.

1. Deep redness or congestion of the cheeks, except in cases of morbid weakness and chronic diseases, indicate a febrile condition.

2. Congestion of the face, ears and fore-

head, of short duration, crossed eyes with febrile reaction, oscillation of the iris, irregularity of the pupil, with falling of the upper lip, indicate cerebral disturbance.

3. A marked degree of emaciation which progresses gradually, indicates a sub-acute or chronic affection of a grave character.

4. Bulbar enlargement of the fingers and curving of the nails, are signs of cyanosis, or a defective heart.

5. Hypertrophy of the spongy portion of the bones, indicates rickets.

6. The presence between the eyelids of a thick and purulent secretion from the glands may indicate great prostration of the general powers.

7. Passive congestion of the vessels of the conjunctiva indicates approaching death.

8. Long-continued lividity as well as lividity produced by emotion and excitement, the respiration continuing normal are indices of a fault in the formation of the heart or the great vessels.

9. A temporary lividity indicates the existence of grave acute disease, especially of the respiratory organs.

10. The absence of tears in children four months old or more suggests a form of disease which is usually fatal.

11. Piercing and acute cries indicate severe cerebro-spinal trouble.

12. Irregular muscular movements which are partly under the control of the will during the hours when the child is awake, indicate the existence of chorea, or St. Vitus' dance.

13. The contraction of the eyebrows, together with turning of the head and eyes to avoid the light, it a sign of inflammation of the brain.

14. When the child holds his hand upon his head, or strives to rest the head upon the bosom of his mother or nurse, he may be suffering from an ear disease.

15. When the fingers are carried to the mouth, and there is, also, much agitation there is, probably, some abnormal condition of the larynx.

16. Scratching or of pinching the nose in children, usually indicates the presence of worms or some intestinal trouble.

17. When a child turns his head constantly from one side to another, there is a suggestion of some obstruction in the larynx or diaphragm.

18. A hoarse and indistinct voice is suggestive of laryngitis.

19. A feeble and plaintive voice indicates trouble in the abdominal organs.

20. A slow and intermittent respira-

tion, accompanied with sighs, suggests the presence of cerebral disease.

21. If the respiration is intermittent, but rapid, there is capillary bronchitis.

22. If it is superficial and accelerated, there is some inflammatory trouble of the larynx and trachea.

23. A strong and sonorous cough suggests spasmodic croup.

24. A hoarse and rough cough is an indication of true croup.

25. When the cough is clear and distinct, there is bronchitis.

26. When it is suppressed and painful, there is pneumonia and pleurisy.

27. If the cough is convulsive, it indicates whooping cough.

MUSH AND MILK.

Oh, the flavor, sweet and rare,
Of the simple farmer fare ;
Mush and milk, the wholesome diet
Of the life so pure and quiet !

Clear the realm of table show !
Get thee hence Delmonico !
Out, ye modern viands flat,
A la this and *a la* that !

Give me now a table bright
With its bowls so clean and white,
Glittering spoons in hands so manful,
Milk so luscious, by the panful !

Oh, the fields of golden maize !
Oh, the halcyon autumn days !
Nibblers, pale in rustling silk,
What know ye of mush-and-milk ?

Once again in foreign lands,
O'er my bowl, I clasp my hands,
Giving thanks that as of yore,
Mush-and-milk can taste once more.

Oh, the rosy cheeks it gave !
Oh, the arms so strong and brave !
Mush-and-milk has raised the latest
Of the nation and the greatest.

THE PERCEPTION OF SOUND. As described by a writer in the *Medical and Surgical Reporter* :—

Sound is a sensation caused by rapidly succeeding to-and-fro motions of the air,

which touch points in the auricle, are reflected, touch the canal of the ear, and are then concentrated on the drum or membrana tympani. Back and within this membrane is a delicate portion of bone, termed the handle of the malleus, or hammer. Fitting into the upper end or head of the hammer is the incus, or anvil, united by a cog-like joint. A third bone is termed the stapes, or stirrup. This last bone, which is the most delicate, and also the most important in its relations to every other bone, may be lost, and the drum-membrane gone, yet hearing will remain. It is attached to an oval membrane, which covers a depression in the bone, termed the oval window, being very movable; the membrane is larger than the foot of the stirrup.

The oval cavity is termed the vestibule, and from it proceed three small openings called the semi-circular canals. Forming a part of this complex yet beautiful apparatus there is a cavity to which has been given the name of the cochlea, from its resemblance to a snail's shell. The cavity of the inner ear is filled with a liquid, in which are spread out the delicate fibers of the auditory nerve, or nerve of hearing. This nerve is very soft and impressible, and also liable to injury from many causes.

Sound is conducted to the drum-membrane, touching it with a delicate or powerful touch, and is transferred to the chain of bones or ossicles. These movable, semi-solid bodies vibrate, and carry the sound-waves to the fluid of the internal ear by means of the foot plate of the stirrup, where they touch the fibers of the auditory nerve, being conveyed to the center of hearing in the brain.

The differences in vibration make sounds higher or lower in pitch, loud or soft, simple or compound. Infinitely more complex are the vibrations produced by an orchestra with a chorus of human voices and solo singers associated. The mind fails in the effort to grasp the wave form of the flood of complex vibrations that pours into the ear at every moment. The highest and lowest tones are heard; the qualities of the notes produced by the strings and wind instruments and the voice are all discernible.

Scientists explain this wonderful property of the sense of hearing by the theory that the terminations of the nerves in our ears can analyze complex vibrations, every audible tone throwing into sympathetic vibration one or more of the nerve terminations, different nerve terminations being affected according to the frequency of the vibrations.

HEALTHY VS. INJURIOUS BRAIN WORK.

Under this caption a writer in the London *Lancet* makes certain discriminations with regard to the method of nature in supplying the needs of the body, that we think it well to call attention to his views.

There is such a thing as mind-strengthening work. In truth it is, every physiologist knows, only by work minds or, more correctly speaking, brains can be strengthened in their growth and naturally developed. The exercise of those centers of the nervous system with whose functions what we call consciousness and intellect are associated, is as

essential to their nutrition as activity is to the healthy growth of any other part of the organism, whether nervous or muscular. Every part of the living body is developed, and enjoys vitality, by the law which makes the appropriation of food dependent upon, and commensurate with, the amount of work it does. It feeds in proportion as it works, as it works in proportion as it feeds. This canon of organic life is the foundation of those estimates which physiologists form when they compute the value of food in measures of weight lifting power. It is, however, necessary to

recognize that, although these propositions are true in the abstract, they need the introduction of a new integer or combining power before any sum of results can be worked out.

We know that food is practically just as truly outside the body after it has been eaten, digested, and even taken into the blood current, as it is when it lies on the table. Nutrition is a tissue function, and its performance depends on the appetite and feeding power—which is something different from the organic *need*—of the tissue with which the nutrient fluid is brought into contact. Again, any particular part of the organism may be so exhausted by work that it has not power enough left to feed. It is a matter of the highest practical moment that this fact should be recognized. There is undoubtedly a point at which work ceases to be strengthening and becomes exhausting—self-exhausting and self-destructive as far as the particular issue in activity is concerned.

Work may be carried too far, in fact to such a point that not only the last reserve of power is exhausted, but the ultimate unit, so to say, of the force of nutrition, which is, as we now believe, identical with the force of general activity, may be expended in work and the organism left so utterly powerless that its exhausted tissues can no longer appropriate the food supplied or placed within their normal reach. We have said that it is necessary this should be understood. It has a special bearing on the question of brain work in childhood and adolescence.

Just as extreme weakness and faintness of the body as a whole produce restlessness and loss of control, so extreme exhaustion of the brain produces mental agitation and loss of healthy self-consciousness. This is how and why the “overworked” become deranged.

One of the earliest indications, or *symptoms*, of brain exhaustion is commonly irritability; then comes sleepless-

ness of the sort which seems to consist in inability to cease thinking either of a particular subject or things in general; next, the mental unrestfulness or uncontrollable thought gets the better of the will, even during the ordinary hours of wakefulness and activity, which is a step further toward the verge of sanity than the mere persistence of thought at the hour of sleep—this way lies madness; and, finally, the thinking faculty, or, as we say, the imagination, gets the better of the will, and asserts supremacy for its phantoms, those of sight or of hearing being the most turbulent and dominant, which happen to be most commonly used in intellectual work, and therefore most developed by the individual *cerebrum*; this is madness. Such is the story of overwork of the brain or mind; and it is easy to see that at any stage of the progress from bad to worse the will may be overpowered, and the judgment perverted, in such manner as to impel the victim of this mind trouble to seek refuge in death, or to so disorder his consciousness that he supposes himself to be acting in obedience to some just and worthy behest when he commits an act of self-destruction or does something in the doing of which he accidentally dies. Such, in the main, is the story of suicide from overwork.

What, then, can be the excuse pleadable by those who heap on the brains of the young or adolescent such burdens of mind labor and worry as exhaust their very faculties of self-help and leave them a prey to the vagaries of a starved brain? We pity the suffering of those shipwrecked sailors, who after exposure in an open boat, perhaps without food, for hours or days, “go mad” and, raving of feast and pleasures, the antitheses of their actual experience, fall on each other, or throw themselves overboard. Have we no pity for *brains* dying of lack of food because we have compelled them to expend their very last unit of force in work, and how they are distraught in the act of dying?

AGAINST THE USE OF MEAT.

YOU ask me why Pythagoras abstained from the use of meat? On the other hand allow me to ask you what courage must have possessed the man who first brought to his mouth the bruised flesh, who broke the expiring beast between his teeth, who made the dead body serve his wants, and took within his stomach members which a moment before had breathed, lowed, walked and had the power of sight? How could he thrust a knife into the heart of a sensible being, how bear to witness the murder, how to bleed, skin, dismember the defenceless animal, how endure the sight of the panting flesh, how could its odor but stir his heart, how could he but be disgusted, repelled, seized with a feeling of horror when he attempts to touch the filth of the wounds, in removing the black, congealed blood which they contain? Conjecture, if you can, the feeling that must have possessed him the first time that he overcame nature to make this horrible repast, the first time that he had hungered for a living beast, that he had a desire to feed upon a grazing animal. Hear him tell how he could kill, dismember and roast the lamb that had licked his hands. We marvel not so much at those who quit the use of meat as at those who commenced it, but these last mentioned could justify their barbarity by excuses that would bring disrespect upon us and prove us a hundred times more barbarous than they. These people of the early ages might say to us who seem indeed to have all the benedictions of the gods—"compare the times in which you are happy to those in which we were miserable. The earth newly formed and the atmosphere charged with vapors were both untractable to the order of the seasons. The uncertain course of the rivers displaced their banks. The waters covered three-fourths of the earth's surface, while the remaining fourth was overgrown with sterile

forests. The earth brought forth no very edible fruits, we had no implements of labor, and if we had would have been ignorant of the art of using them. While we hungered harvest never came for which nothing had been sown. In the winter season moss and the bark of trees were our ordinary food. The green roots of dog's-grass and heather were a feast, and when we could find beechnuts, walnuts and acorns we would dance around an oak or beech tree to the sound of some rustic songs in which we would call the earth our mother and nurse. It was our only feast, our only joy. The rest of human life was sadness, pain and misery. Finally, when the dismantled earth and sky offered us nothing, forced to outrage nature to maintain ourselves, we ate the companions of our misery rather than perish with them. But you cruel people of this day, what forced you to the shedding of blood? What plenty surrounds you, what opulence gives you the fields and the vineyards, what animals offer you their milk to nourish you and their fleece to clothe you! What more can you ask! What madness induces you to commit such murder? Why do you lie against your mother earth in accusing her of not being able to nourish you? Why do you sin against Ceres, author of holy decrees, and against Bacchus, consoler of mankind, as if their prodigal gifts were not sufficient for the preservation of mankind? How can you mix with their sweet meats the bones of the slain beast, and mingle with the milk the blood of the animal that furnished it? Such animals as the panther and lion, which you call ferocious, follow their natural instincts and kill and devour others in order to live. But you, a hundred times more ferocious than they, slaughter the beast for your own cruel delight, and not because it is necessary to your existence. The animals that you eat are not those

that are carnivorous ; you do not eat the beast that devours others, you imitate it. You hunger for those wild and innocent animals that do no harm to any one but attach themselves to mankind, and you devour them for the price of their services to you. O murderer against nature, if thou wilt render thyself obstinate in refusing what she has provided for thy support, and cravest beings of flesh and blood, as sensible to pain and full of life and being as thou, then suppress the horror with which the slaughter inspires you and kill the beast thyself. With thy own hands, without instrument or cutlass, tear them with thy nails as do the lion and the bear, bite into the flesh, sink thy claws into the carcass, eat the young lamb greedily while

it is yet warm, drink his very life with the blood. Thou shudderest, thou canst not tolerate the thought of a living being palpitating beneath thy breath. Piteable man, thou commencest by killing the animal and eat it afterward as if you would cause it to die a second time. This is not enough to deaden thy feelings for thy repast. It must be transformed by the fire, boiled, roasted and seasoned with ingredients that disguise it. You are made the butcher, cook and caterer, although some one does relieve you of the horror of the killing. When the sense of taste has been deceived by these disguises you eat of the mutilated body without witnessing the slaughter.—*From the French, by Rousseau.*

SHOULD WOMEN TO REMAIN IN THE MEDICAL PROFESSION?

THE qualities which are required in a good physician are many and various. Intellectual ability is presupposed in the case of every one entering the profession. But intellect alone is insufficient. It may make one acquainted with the nature and cause of disease and master of the science of medicine ; it may take the highest mark in the class-room and win the honors at graduation, yet utterly fail of success in practice. A completely equipped physician must be intellectually fit and intellectually prepared for his work, but he must be a great deal more.

It is readily seen that courage and fortitude are needed ; courage to face danger in its most subtle forms, fortitude to look upon suffering unmoved, and to inflict pain without shrinking whenever pain becomes a merciful necessity. With these must be blended a fine enthusiasm which will make the physician's work the grandest of all work, and any sacrifice for it small in comparison ; an enthusiasm which will carry the habits of the student through life, thus keeping him abreast of the world's progress in knowledge and equal to the demands of

his calling. Courage, fortitude, enthusiasm, studiousness, may be set down as the general qualifications, added to intellectual ability, necessary in a good physician.

But the peculiar and delicate relation existing between the physician and the patient call for particular qualifications quite as important to his success. It has long been known that many diseases, especially those of a chronic character, have their root in the mental condition of the patient, either present or past, and that often the sick person is languishing for sympathetic contact with some strong, positive nature. Often, when it is absolutely necessary that the mind should be unburdened before the bodily ailment can be reached, the physician is entrusted with the most private affairs of the patient. The most secret and sacred pages of life history are laid bare before him. At another time the sufferer needs to be brought from a condition of doubt and despair into an atmosphere of hope and faith. These demands of the sick call for a fine tact on the part of the physician to adapt himself to the peculiarities of his patient, a keen perception

to detect his mental needs, the highest moral character to win and be worthy of confidence, and a positive optimism to meet the evils and mistakes in human life. The greater the refinement and sensitiveness of the patient the greater need of purity and delicacy on the part of the physician; the greater the moral depression, the larger need of the opposite qualities to restore the unfortunate to perfect health.

This is a brief outline of the leading qualifications necessary for a successful physician. Intellectual acumen, courage, fortitude, enthusiasm, a spirit of self-sacrifice, sympathy, perception, adaptability, moral character. Is there a single requirement here that a woman can not meet? Her sympathy, self-sacrifice, fortitude, have won acknowledgment long ago in the domestic circle; her perception, adaptability, tact, have the same recognition in social life; her intellectual ability, courage, enthusiasm, are conquering the greatest difficulties in her pursuit of freedom and knowledge that the zeal of man can invent; her moral fitness for any work is pre-eminent and unquestioned. It is still surmised by the timid conservative that she lacks "nerve," as it is commonly expressed, but that this fear has no foundation in fact has been proven by those women who have already achieved a high place in medicine and surgery and are serving in hospitals and treating the most difficult cases with consummate skill. She may fail in hardihood and indifference to suffering, but she carries in her breast a moral heroism which bears her through the most trying scenes.

Competent women ought, therefore, to remain in the medical profession; not because they are women, but because they have a native taste and fitness for the work, and the same may be said of men. For the necessary qualifications are monopolized by neither man nor woman. We are coming to see that it is not sex that makes the dividing line between the profession and the laity, but qualification.

But are we not prepared to go still

further than this in maintaining our claim? In so great an innovation as the admission of women to the medical profession, it was natural that her first sphere of practice should be bounded by her own sex. Even now, it is common to hear a woman student say, "I am preparing to treat women and children" and to see on the business card of women physicians the announcement that they are specialists in diseases of their sex. This is right, and what a great number of women have long hoped for. But we are yet in a transition period as regards this subject, and the status of the woman physician is not yet fixed. A greater change in opinion and practice is imminent, indicated by the few women who frankly acknowledge that for themselves they prefer men physicians and the few men who as freely declare they prefer women physicians. That the opposite sex should many times be chosen is the natural outcome of the relation existing between the physician and the patient. The confidence, sympathy and personal helpfulness demanded by this relation flow more readily from man to woman and from woman to man, when all the qualifications for the office herein indicated are furnished. If any one wishes to object to this view, he must find fault with the Creator, who made man and woman dependent on each other, for each other, the complement of each other. As we achieve a better understanding of social needs and a greater purity of social life, the beauty and helpfulness of man's relation to woman and woman's to man will be more apparent.

To the question "Ought women to remain in the medical profession?" there can be none but an affirmative answer. It is quite possible that some persons of both sexes, who are unworthy to bear its high responsibilities, will find their way into the profession, but considering the interests of a better medical practice of woman, and of the profession, any other answer would be calamitous.

Toronto, Ont.

S. E. BURTON.

Child-Culture.

TROUBLESOME CHILDREN.

THAT there is a vast difference in the amount of trouble which children give to their attendants and other members of the household, is a generally conceded fact. The causes for those differences are doubtless as manifold as the differences. One undoubted cause is the lenience with which the first out-cropping's of mischief for fun, or mischief for malevolence is met by the parents. Even at three months of age a babe can be made to understand that it must not pull certain things; and that discipline should be unswerving, not enforced one day and permitted the next. Baby can also be taught before five months that there are times when he must amuse himself, and can not be held or amused by mamma or any other member of the family, provided of course that he is in good health.

Promptitude in attending to his actual needs will do much toward preventing future "troublesomeness" of an annoying character.

So soon as a child begins to ask questions, there arises need for judicious guidance and discipline. To a traveler there can occur nothing more patience-trying than to be seated near a child who is a perpetual interrogation point, and whose questions are the offspring of an unguided brain having no fruit but the annoyance of all neighbors. The questioning which brings knowledge should always be fostered to a reasonable extent in the home, but it does not take much training to bring a child of fair mental caliber into an understanding of

when and where it is proper to ask questions, and the class of questions which are never proper for a little child to ask.

Personalities should not be permitted even in a child of two years, the discouragement of not answering the question of "Why does Mrs. Brown wear such a funny hat?" or "What makes Mr. White walk that way?" or, "Hasn't Mrs. Black a big nose?" will generally put master Johnny and miss Kitty in their proper place on the line of personalities.

Another phase of the "troublesome" child, is, when it is possessed of a chronic inclination to "grab" every thing within range of its vision and fingers. The mother of the chronic grabber is promptly on the defense if anything is refused to the darling. Recently in a railway station, we saw a child of two years who wanted and was given everything which could be held by his small hands; near by sat a lady with a pretty fan. The child tried to clutch it; the fan was swayed with the same steady motion. "Poor baby wants the lady's pretty fan," said the mother, and with a war whoop that would have done credit to an embryo brave of the wild west, baby tried again, the fan was held out of its way and the motion resumed. "Madame," said the mother, "will you put up your fan?" "Certainly not." "Then I must move my seat." "I have no objections." "I have baby and my bag and basket, and my husband is not here, and baby is bound to have your fan." "Don't distress yourself he will not get

it." "Oh, dear," sighed the mother, as baby made another lurch for the fan and got a smart rap on his knuckles, upon which he set up a screaming that brought every mother and father in the depot to see what was the matter. The lady with the fan sat unmoved still enjoying the gentle breeze she could create with it.

"*She* struck my baby." "Oh, how dare she?" "He wanted to destroy my fan and I protected it; he will receive harder blows than that if he is allowed to have his own way." "The crusty old maid." "No," said the lady with a smile, "I am a mother and a grandmother, but

no child related to me is allowed to be a public nuisance." Half an hour later we saw the lady with the fan take a little blossom of a girl from her pale-faced mother and cuddling her in arms show her the wonderful Italian skies, gay dancers, and fine, rich landscape painted upon it; soon the little eyes closed and the little one forgot that she was tired as she was gently laid on a seat to await the train her mother must take. "Your dear little girl is so gentle and ladylike, I hope she will live to reward you for your motherlinesss," and the fan was furled and went with its owner on a western bound train. MRS. A. ELMORE.

CHILDREN'S EVENINGS.

IF you wish to keep children out of temptation, keep them out of the dark. It has been estimated by eminent authorities that the electric lights of the great cities have in effect nearly doubled the police forces. Crime can not exist in broad day light. "Seeking darkness rather than light, because their deeds were evil" is a physical fact as well as a moral one. When the twilight falls see to it that your children, old and young, are within your own home. When the sun sets the chickens have already begun to think of a rest for the night, and when the sun is out of sight make it a rule that your children come home. If you have the moral courage to do so, they should come into the house at sunset and not leave it again until daylight, and until they have had something to eat.

Satan stalks abroad in the darkness. When the night shadows fall the children on the street begin to use language which they would suppress in daylight. Stories are told, adventures discussed, plans for mischief are laid and carried out as they never are in the daylight. It was in the night that the Eastern legends made the ghouls go forth to

their unholy work. As darkness comes down the childish imagination lights its lurid fires and ghost stories and others which are even worse are invented and repeated.

In the cities and towns the children will find bad company on the streets to increase the evil tendency of the darkness. In the dark they will accept associates which they would shun in daylight. Screened from observation and relieved to a corresponding degree from responsibility, they will act as they would not under other circumstances.

These remarks are as true of girls as of boys and apply as forcibly to those of twelve or sixteen as to those of five or six. If a parent would shield his children as far as he possibly can, he must have them in his own house as soon as it becomes dark. This rule has no exceptions until the child has reached the age of twenty-one. It must be understood that this does not mean that parents must not take their children out to church or to evening entertainments, but it applies only to their going alone or in the company of those of their own ages. If you can not remember your own adventures when a child, go out some

fine summer evening, about dusk, and walk from home along some street where the young people or the boys and girls congregate. Observe carefully and listen to such scraps of conversation as you may. Then mentally put one of your own children in the places of some of those about you. Even in the smaller towns and villages it will be found that the children on the streets would not have a good influence upon the manners at least.

In the cities and large towns the long evenings are a bugbear, and the street, the concert, theater, rink or concert garden are the refuges from it. And because children have their thoughts upon such amusements we find that few great, or wise or notable men come from the great cities.

Home amusements, home study, reading, music, games and conversation be-

come the foundation of an education. Make the home enjoyments of such a kind to suit the tastes of your children as far as possible. There will be little difficulty in the enforcement of the rule that brings them home at night.

In some parts of the country children are in the habit of going out to spend the evening and then staying all night with their friends. The general tendency of this is bad and had better be discouraged. The gossip after going to bed is bad, even if it is harmless in itself it prevents sleep and so becomes objectionable. At such times children are prone to become story tellers and much harm may be done to those of very tender age by some story told in the dark by an older child.

In a word gather your chickens at night when the hen gathers her.

W. E. PARTRIDGE.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—NO. 6.

OBEDIENCE.

OBEDIENCE, the submission of the ignorant to the wise, the unlearned to the experienced, the finite to the infinite, is the first moral law, the foundation upon which all training, both religious and secular, is built, and without which education would be rendered impossible. The principle of obedience is the earliest lesson the infant mind is capable of receiving; it is the Alpha of all virtues, and it is absolutely indispensable.

Every young mother starts with the avowed and probably sincere intention of teaching her child to obey; but my observation leads me to conclude that not more than one in ten thoroughly carries that intention out, and my object now is to try and offer a few hints as to various causes which may possibly contribute to this failure.

First then, I think a great deal is due to the mother not definitely settling in her own mind what is permissible and

what is not; what her child must do, or submit to, and what may be excused; an absolutely clear idea on this subject, firmly adhered to, is essential. The uncertainty of some parents, their weakness and vacillation, must be very trying to the tempers of their poor children, as well as highly injurious morally. If Tommy finds that he may do that one day with impunity for which he gets punished the next, he naturally becomes confused and callous, and if really desirous of being good, sorely disheartened. Again, the children are, perhaps, told to keep out of the parlor, but their mother is not certain whether she really cares about them going in or not; consequently she sees them, one by one, stealing towards that forbidden paradise, and takes no notice. By-and-by an ornament is broken, or the curtains soiled, then out they are all bundled, pell-mell, with severe reproof for their disobedience; whereas if no disaster had oc-

curred, they might have remained undisturbed, knowing full well that their mother was aware of their disregard of her injunction, as long as they pleased. A few rules, strictly carried out, will ensure obedience, where a multitude of commands and prohibitions, needlessly uttered, and perhaps, as soon as forgotten, are certain to be despised.

It is but natural that when children see that the person in authority over them does not actually care whether they obey or not, they will suit themselves about observing her orders. She should take pains to see that every command she issues is obeyed, and let no act of disobedience pass unnoticed and uncommented upon. This will make her very careful as to what rules are laid down; and brings me to another possible cause of disobedience—namely parental unreasonableness.

Some people would be as much surprised, not to say alarmed, if their children obeyed them implicitly, as the old folks in the tale who were granted their three wishes; and I know from experience that the consciousness that one will be unquestioningly obeyed impels one to bring the number of commands issued down to their smallest possible limit. Often when a child has been playing round me at some noisy game, I have felt inclined to exclaim, "You must leave off, now, and be quiet!" But there came the thought "Have I a good reason for such a prohibition? Is it needful and right that I should stop the dear boy's merry play, and bring a cloud over his spirit?" If the time, place, and manner of game were, all things considered, otherwise unobjectionable, and no actual indisposition of any one within hearing rendered a lesson in consideration for others desirable, I could not conclude that to stop the play would be tyrannical. Was not this better than to say, without reflection "You must be still!" and then either arbitrarily enforce quietude, or countenance disobedience? I also believe in explaining to

children the wherefore of an injunction whenever possible, as it is likely to encourage their faith in one's reasonableness, and make them ready to obey blindly when necessary.

I find, moreover, from observation, that no one will secure obedience for any length of time who does not expect it, and show that she expects it; and she who feebly laments in the hearing of those over whom she desires to obtain control, that she "can not get them to mind" her, makes a humiliating confession of weakness, and is doing much to ensure her own defeat; as does also she, who to satisfy her conscience, tells her children, time after time, to do that which she is aware they ought to do, or to abstain from something she knows they should not do—for instance, to let alone any article which they ought not to touch—and then finding, as she expresses it, that it is "no use to speak to them," gives up in despair, and leaves them masters of the field. Concerning that same tiresome habit of meddling, one of the commonest of childish faults, to which I alluded to in my last paper, I would say again that it seems to me nothing is more foolish than the practice of leading little folks to suppose, by putting anything which they are not to have out of their way, that they are expected to handle everything that is within their reach. That mother who succeeds by firmness and perseverance in enforcing the good old rule of "eyes on, hands off," is surely strengthening her child's character, and inculcating self-control, while she saves herself an immense deal of future vexation and trouble, not only as regards the juvenile's conduct while small and young, but also in after years. I once knew a mother whose daughter had as a child been allowed to meddle with and pry into everything, and who, in consequence, when the girl was in her teens, was compelled to lock up all her own private drawers and boxes, and hide the keys, lest her first temporary absence

from the house should be the occasion of a general "turn out!"

Lastly, no parent will gain obedience who allows herself to be prevailed upon by *any* amount of fretting and fears to permit that which, after due deliberation, she has decided to be wrong, or to overlook the omission of any duty which she feels convinced is essential; and if the child finds that resistance produces

not the slightest effect, he will soon cease to expend his strength upon it, and learn to respect the will that is superior to his own.

Knowing, however, that in many cases "moral suasion" alone is insufficient to ensure obedience, I will next offer a few suggestions as to my idea of rewards and punishments.

JENNIE CHAPPELL.

ORDER.

IN attempts to correct a child in whom heedlessness and disorder are marked, we must take into account the process of mental evolution. This conclusion is readily deduced from what I have said in the brief consideration of the philosophy of the subject. (See August No. *C. C.*). To make such a child neat and systematic by scoldings and blows will be impossible; the tendency of that kind of "training" will be to stimulate the development of certain passional qualities that seriously interfere with mental order.

Let us think for a moment of what is necessary in any kind of good training or education. If a man has a young horse, and is desirous to correct certain faults in his gait, would it be wise to jeer and yell at him, and to whip and cuff him severely? No, the judicious master is kind and patient in his treatment of the dumb, ignorant beast and endeavors to show him how he should walk or trot, or canter. Pains are taken to educate the animal's legs, and to beget a habit of proper action. Rough and severe treatment throws what intelligence a horse possesses into confusion; he reflects the temper of his angry, impatient master.

So with the average child; his susceptible, unregulated mind is quickly affected by the mental conditions of the parent or teacher, and the excited faculties in one arouse a corresponding excitement in the other.

Is it sufficiently appreciated by those who have young people in charge, that to attain the object of any special training it is essential that the instruction given should involve the nature and functions of the faculties themselves that are sought to be developed? If a little fellow shows a marked disposition to quarrel and fight, we could not expect to subdue his combativeness by teasing and provoking him, but by mild and gentle conduct, patient and firm discipline, instruction being given meanwhile with respect to the proper exercise of the combative element. Thus led he would in time show marked improvement in his disposition.

The fundamental principle of the combative faculty is courage, boldness in the defense or assertion of personal right and duty, and this being kept in view constantly by the teacher, and his instruction being made accordant with it, must in time be effective in a normal regulation of the faculty. Applying the principle to the Order sense, it is readily seen that we should not attempt to correct the faults of others, and especially to develop the sense when weak and immature as in children, unless we illustrate it in our method. We must be precise, systematic, well-poised and forbearing ourselves.

The ecclesiastic who admonished his people to do as he said and not as he did, was more humorous than wise, besides being confessedly unfit

for the station he occupied, because the common sense of the masses knows the bald inconsistency of such advice, coming from any one. Example is far more effective than precept at all ages; with children it is the *sine qua non* of edifying instruction.

I know a family that is at once reputable for its hospitality and disorder. Every one who is invited to visit there is received with a cordial welcome and treated generously, but if his sense of neatness and regularity is keen he escapes as soon as possible from the medley of furniture and the confusion of the house-keeping as soon as he can. The young people of that family have been fairly educated; their conversation in society shows intellectual training, and their conduct refinement, but in their rooms at home disorder and negligence abound. There is no lack of parental talk on the importance of keeping things in place, of punctuality and system, but the parental example is shockingly lacking in those virtues, and there being no heri-

tage of a sensitive and active faculty of Order to prompt them to different habits they have very naturally dropped into the same careless and slovenly ways.

Here it may be said the disorderly practice relates more to exteriors and physical concerns than to the mental life itself. We, however, see many instances of the culture of Order on its *physical* side; people who are scrupulous and exact with regard to dress and surroundings, annoyed if their personal affairs are disturbed, their house or business appointments deranged, and yet in their mental and moral life showing a surprising lack of taste, harmony and decency. In the current of our thought, in the exercise of the will, in the appreciation of duty, in the expression of feeling and sentiment Order must enter and perform a controlling part, to render those acts of mind-function, that are the highest known to man, properly effective and conducive to his true growth and best usefulness.

H. S. D.

HOME TEACHING BEFORE SCHOOL TEACHING.

"I'M getting sick of so much talk about the necessity for better schools," said an old teacher to me the other day.

"I don't know but I shall soon come out with a little paper to prove that the schools are already much too good."

"My dear," said I, "do you contemplate shirking your duties in the future?"

"No, I mean to go on as I have done for years, and as hundreds of teachers are daily doing; trying to punch ideas into brains that would otherwise never contain one. I suppose it is better such brains should contain a few ideas, even if they never know enough to make use of them, but it is very discouraging to a teacher who wants to see some good result from her toil. I was thinking of the Blakley boys. Their father is a college graduate, and the mother also received a good education, but the boys

know nothing but malicious mischief."

"How do you account for it?" I asked.

"As I account for much of the same lack of mental powers in the children of a good many of our smart people. They don't take the trouble to teach their children to think for themselves, and to think intelligently. They are so well fitted themselves to do the thinking for the whole family, and can do it so easily, that it never occurs to them that they are usurping the rights of others, by so doing. It is very different in families where the parents often feel the need of a better education, and have a real love for knowledge. It is always a pleasure to teach their children, for the teacher feels as if she were sowing seed in very fertile soil. A practiced observer can nearly always tell the families where

reading aloud is practiced, and followed by a discussion of that which has been read, in which the children are encouraged to take a part; and the reading where, if any views are given of the subject, they are always the father's or mother's, while the children listen indifferently if they listen at all.

'Books and papers do no real good, without the children are encouraged to read them, and taught to form intelligent ideas of what they read. Then their minds become fitted to receive an education that will do them some good, and they can receive such a training nowhere else as they can at home. I know lots of parents who decline to "fuss" with their children, because teachers are paid for educating them. And they do educate them to the best of their ability, but with most children of such parents, it is very like the education which is given to the dumb brute that performs inside the circus tent.

"I knew two women, each of whom had one son. The boys were nearly of the same age, not very strong physically, and decidedly weak mentally. At the age of three years they were about as smart as a child of one. Ask one of them a simple question; if he was feeling well, for instance, and his mother would look at him nervously and say, 'Tell the lady quite well, thank you,' and the boy would repeat it as a parrot would. They began before he could speak intelligibly, to teach him his letters and after two years trying he knew most of them. He was sent to school until he became too large to go any more, and refused to remain in the classes with boys of seven and eight. He will never know enough to be able to read a paragraph in a newspaper and will never care to do so.

While the other boy who was not a bit smarter at the age of three years, whose advantages were no better, whose parents were no more intelligent, is a man of fair ability and a medium amount of intelligence, has a home of

his own, and is quite capable of earning a comfortable living for a family.

"What caused the difference between the two boys? All who know them believe it to be the difference in the training which they received.

"Jamie, the last one mentioned was taught to think. If a question were asked him, his mother obliged him to answer it without help, and if his answer were incorrect, she helped him to think about it, and then give a better one. He was never allowed to learn things by rote. His physical condition was built up as fast as possible, and, by means of object lessons he was made to understand what she wished to teach him. She never helped him to an answer until he had first given one, and she never failed to explain to him just how his was wrong. It was a task no teacher could have accomplished. It required unlimited patience and years of hard work, but do you believe she can compare the two boys now and regret it? No matter how naturally intelligent a child may be, I believe he will be improved if taught to think for himself, and before he is old enough to attend school. And parents who neglect that branch of home training, rob their children of much of the success in life which might otherwise have been theirs.

"I know girls, here in town, who have nearly gone through with the high school course, and who are not so intelligent as some others who have not finished the fifth grade. They have learned their lessons without thought. I know some of them who would find it hard to get a certificate which would enable them to teach a country school, six months after they had left off study. Because of lack of thought their lessons have left no impression, but their teachers are not to blame; the parents are. There is too much of that kind of educating done. Money is wasted which is spent in diffusing it. And yet, it is very hard, as I think I said before, to put ideas into the brain which years of neg-

lect have allowed to become too dense to give them a proper reception." Just here, my friend who is an old maid, saw Jack coming and beat a hearty retreat without stopping to finish the lecture in which I was becoming interested.

—*The American.*

A BEAUTIFUL PICTURE.

JOSEPHINE walked along the sea-walls and came to willows and dike, and looked into Richard Cable's garden. Thence she heard children's voices. She went to the bridge, crossed the water and entered the garden. She saw a ladder set against the side of the house, a short ladder, for the house was but one story high, and Richard Cable was above the ladder on the roof pruning the vine. As he chopped off a young shoot with leaves and tendrils he stooped with it to his little Mary, who sat just below her father's foot on a lower bar; and she stooped and handed the cluster of leaves to Effie, who sat a stage lower; Effie handed it to her twin sister, and Jane to Martha and she to Lettice, and she to Susie, and at the bottom sat Mrs. Cable with the baby, and insisted on the tiny hands receiving the cool, beautiful leaves from the little sister. The pretty children were thus on steps of the ladder one above the other, with the evening sun on their golden heads and their white aprons and their smiling faces and dancing blue eyes.

Presently Cable called for some string and the baby was made to hand it to Susie, who received and raised her arms over her head, when Lettice bowed and took the string and passed it in like manner above her head to Martha, who in similar style delivered the string to Jane, and so to Effie, and Effie to Mary, and Mary to her father. Josephine stood where she had crossed, looking at the picture of peaceful happiness. Soon she drew back thinking she was unobserved and sat thinking and contrasting her life with that of these children. She was startled to hear a step behind her. She looked round—Richard Cable was there.

"As you did not come to us, I have come to you." "O, Mr. Cable! I did not like to interrupt you while you were pruning your vine."

"I was giving my pets a lesson," he said. "A lesson! Of what sort?" "A double lesson—to take their several seats and sit there content; and to form a part of the great chain of life, each assisting and assisted by the other." "What! Delivering a moral lecture to the infants?"

"No," he answered, "I said nothing to them; they take in these ideas naturally. Did you see how they were all of them, mites on the ladder and me at the top, passing things up and down. It is not necessary for one to give a lecture on it. They would not understand it now if I did; but afterwards, when each takes her place in the social scale she'll, may be, remember how she sat on the ladder, and will pass good things down to those below, and will also hand up what is due to those above. It is a picture of life, Miss."

"You are a moralist," Mr. Cable.

"I don't know that, but I have time to think. In Autumn, when the grapes are ripe I shall be on the trellis again and all children on the ladder. Then I shall pass down the bunches and they will go down untasted. I need not give a word of teaching about it, they learn of themselves, that the strong and older, and those high up, must stoop to help the weak, and the young and the lowly."—*Christian Herald.*

KINDERGARTEN THOUGHTS.

Little Children, to whom regular school life would be a hindrance to growth, need scientific, garden-like culture and training; they need the best conditions, the best appliances for starting mental activity properly.

The Kindergartner, in an especial manner, guides and superintends the formation of the mind's powers and activities, and for this she needs rare ability, a profound insight into the nature and movement of the mind in its earliest years.

NOTES IN SCIENCE AND INDUSTRY.

Editor Phrenological Journal.

—In your September number, on page 160, there is reference, under the caption of “A point for Fence-makers,” to the statement of a scientific writer, that water will permeate the pores of wood more rapidly the way the tree grew than in the opposite direction. Microscopical examination, it is added, proves that the pores invite the ascent of moisture but repels its descent. This is doubtless true; and the principle is operative both in the living tree and in lumber manufactured from the tree. But the applications of the principle, as there made, are, I think, erroneous and contradictory of the principle itself.

The first application is to the case of fence-posts, which are stated to decay much faster if the butt end of the tree is uppermost than in the reverse, or natural position. This would be true, and in accordance with the principle, if the destructive saturation entered chiefly from the air into the tops of the posts, instead of into their bottoms from the ground as it really does. Its entrance from the ground is so generally understood, that careful fence-makers who are posted in the science of the matter, take pains to set their posts with the butt of the tree uppermost.

Fifteen or twenty years ago the Knox College park fence, at Galesburg, Ill., was renewed. About half of the posts (oak) were so rotten that their strength was gone; while the remainder, found indiscriminately along the line, were comparatively strong, and would have served many years longer. They were examined by the learned, and the less learned, with a view to the principle in question, and pronounced confirmatory of it—the soundest being such as had stood tree-butts upward.

Another application, claimed as in point, is to the case of a wooden bucket, some of whose staves became entirely saturated while others are apparently quite dry;—the dry ones being, it is said, in the position in which the tree grew, while the others are reversed. This would be correct if the saturating water entered the staves at their

upper end, which is little exposed to wet. But if saturation entered the pores of the lower end, which is most exposed to moisture, the principle would require the position of the soaked staves, instead of the dry ones, to be that in which the tree grew. The fact is, however, that the wet staves imbibe their water through neither end, but into the surface in contact with the contents of the bucket—the saturated ones being made of the most sappy or open-pored wood.

J. H. SHERMAN, Ithaca, N. Y.

Vest Button Photography.—The process of instantaneous photographing is rapidly becoming an evil. We hear already about specialists in photography for instantaneous pictures since the “Detective Camera,” as it is called, was put upon the market. The box is so small that it can be carried anywhere without the slightest inconvenience, and as the little lens at the bottom is always ready for use, an instantaneous picture can be taken at any desired moment. There was some misgiving at first entertained about the value of these cameras, but we have recently seen some wonderful work produced by them. In the camera is a gelatine plate which can be turned six times, so that six photographs can be taken one after the other, and these pictures are so sharply defined that they can be enlarged tenfold. The inventor, Mr. Stirn, of New York, is a German by birth, and his brother, Mr. R. Stirn, of Bremen, sells the apparatus for about seven dollars (thirty marks), with a complete outfit. No operator is required to fit the camera and lens correctly in position for the party to be photographed. All that is requisite is to pull a string and the photograph is at once taken. With another pull the plate is made ready for another picture. We are told that the most prominent artists carry this detective camera with them at all times. This they do from a strictly professional point of view, and not as amateurs or diletanti. In Germany, Herr Stirn recently produced before a photographic society enlargements to a size of forty centimeters from such pictures, and all were remarkably

distinct and well defined. These plates can also be taken at different distances and always sharply outlined. Young men take their lady friends on promenade to be unconsciously photographed. People, young and old, who have never entered an artist's studio or a photographic gallery will be astonished to see their pictures freely circulated. Most of all it is to be feared that the legitimate business of the photographer will be injured by these cameras. Any possible mania or desire for photos can soon be gratified at trifling expense and after a short term of practice by means of this invention. Photographs can soon be so multiplied as to become a positive nuisance, and from the various considerations that enter into the matter, it does not seem so very easy to answer our query—"What next?"—*American Lithographer*.

Hints on Threshing Wheat.—After wheat is stacked it should not be threshed until it has gone through the sweat which generally takes about six weeks, depending somewhat of course upon the condition it was in when stacked. A mistake is often made in threshing at this time, simply because it is convenient, for threshing at this time not only takes longer, entailing more expense, but the machine fails to thresh out as clean, and the wheat being damp must be either marketed at a lower price or be spread out so as to dry thoroughly. Besides, the straw being damp and large will break into small pieces, and will not be blown out of the wheat, causing a loss if you market direct from the machine. Of course while it may cause you a little more trouble to get a machine, it will always pay you to wait until the wheat is thoroughly dried out before threshing.

While threshing see that the machine threshes the grain out of the straw clean. Many machines thresh so fast that a considerable percentage is left in the straw. Then the sieves want to be kept clear and attention paid to the fan so that the wheat will be cleaned properly and yet none blown away. The machine runner should be obliged to furnish two good sheets, one for the forward part of the machine under the cylinder and band cutter table, and one back under the sieve and measuring box. I prefer to have a good sized box so that the wheat can all

be measured inside of it, and whatever is spilled can be readily secured. Outside of what is lost, there is considerable time saved by having good sheets. Threshing extra fast and then resting is always a loss; good steady work is what you should insist on.

N. J. SHEPHERD.

When to Transplant Trees.—The question, when to plant, is an important one. Some will not plant any thing in the fall, others prefer the fall to all other seasons; the majority of planters will, perhaps, claim that spring is the best season, for the largest amount of planting is done at that time, and failure is not attributed so much to the season. Fall planting, however, has strong advocates among experienced tree planters, and where a planter has given that season a fair trial, his favorable testimony is, as a rule, secured. However, there is a prejudice against fall planting, and a single failure at that season counts more against it than a dozen in the spring. Trees and shrubs planted early in autumn will push roots before winter, for it is not necessary that the top grow to force root-growth; all can prove this by observation. Take up a tree or shrub in November that was planted in August or September, and you will be surprised to see the amount of new and growing roots. A fall-planted tree becomes established by this means, and naturally is in a better condition to grow the coming spring. I believe if careful and systematic experiments were carried on in tree planting the fall would be found a better season to plant than in spring; the ground is warm and moist, in the best condition for the formation of roots, the air is moist and there is not the fierce, drying winds of early spring, or the liability of a June or July drouth soon after the tree is planted.—*Vick's Magazine*.

Grease Spots.—What will remove grease spots from clothing in the best manner, is a frequent inquiry. There is probably nothing better than equal parts of strong ammonia water, ether and alcohol. Pass a piece of blotting paper under the grease spot, moisten a sponge first with water to render it "greedy," then with the mixture, and rub with it the spot. In a moment it is dissolved, saponified and absorbed by the sponge and blotter.

The Government Engraving Room.

—A description of the department as given in the *Washington Star* is interesting. The Bureau of Engraving and Printing is one of the most interesting to visitors of all the Government offices and workshops.

Even the great vaults of the treasury, overflowing with surplus, contain nothing of as great value as some of the bits of steel upon which have been traced rare works of art. These are the steel plates from which are printed treasury notes, silver and gold certificates, and bills of all denominations, and the Government bonds. In the vaults there are kept the plates for every bank note, treasury note, and every other form of security that has ever been issued by authority of the Government. And they can give you the history of each from the day it was first conceived, giving the name of every man who ever laid hands on it, and how and when and why he touched it. If any of these plates should be stolen, there might be printed from them notes or bonds representing money to an incalculable amount.

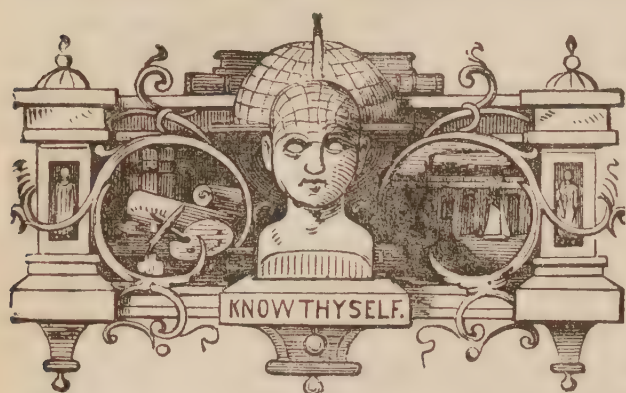
These plates are surrounded with impenetrable safeguards. The large room, nearly the full length of the building, is occupied by only the engravers at the windows, Mr. O'Neil, the chief engraver, and the custodian. On one side of the room is a railing and wire screen, such as are seen in banks, behind which are the desks of Mr. O'Neil and his bookkeeper. On the other side of the room, at the door of the vault, is a similar enclosure, where sits the custodian of the plates, dies, rolls, and other property. When the chief engraver comes in the morning he makes a requisition upon the custodian for such of these precious bits of steel as he wants. Each piece has its name or designation, whether it is a bit of lathe work, a vignette, or entire plate, and when they are surrendered to the chief engraver upon requisition, an entry is made on the books of the custodian. The bookkeeper or custodian of Mr. O'Neil makes an entry on his books also, to show what he has received. Then, as the engravers want the different pieces of work, a similar account is kept with them, and no man can leave the room until the books show that every piece

or engraving that he had in his possession has been returned and he has a note from the chief engraver to show that such is the case. The watchman would not let them out of the building without this. When a bell sounds at noon the engravers go to lunch, but outside the building.

When the work is over for the day the accounts between the chief engraver and his subordinates are balanced, to show that each has returned all the work placed in his custody. The rolls and dies and plates are returned by the chief engraver to the custodian from whom he got them, and if no piece is missing his requisition is returned to him and the property locked in the vault for the night. Should it ever happen that any thing was missing, even if it were the smallest fragment of engraving, no one would be permitted to leave until it was found. A complete record is thus kept of every piece, so that you can tell just where it was at any time, how long it was in any one's custody, and what he had it for.

A Fireproofing Solution. — For rendering fabrics, wood, and other inflammable objects fireproof, a writer in *La Nature* recommends borotungstate of soda, a salt which he states has never hitherto been employed for the purpose. It is made by dissolving boracic acid in a hot solution of tungstate of soda. Objects impregnated with this solution are rendered incombustible. The solution gives off no deleterious gas, while ammoniacal salts, phosphate of ammonia, and salts of phosphorous render the air irrespirable. Borotungstate of soda in solution is also said to possess valuable antiseptic properties, and has been used with success in diphtheria, for dressing wounds, and as a wash in cases where an antiseptic is needed. The solution has no odor, but its taste is bitter.

Graining Colors for Oak. — For light wainscot oak take white lead and yellow ochre mixed to the required tint; for a darker wainscot oak, mix white lead, middle chrome and yellow ochre; for dark oak mix white lead, Venetian red and yellow ochre; or, if a still darker hue is wanted mix white lead, raw sienna, burnt umber and Venetian red; or burnt and raw sienna, white lead and burnt umber.



FOWLER & WELLS COMPANY, *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
OCTOBER, 1887.

GENUINE PHYSIOGNOMY.

THE immediate, physical, instrument of mind is the brain and nervous-system, and the analysis of this is made in terms of *temperament*. Now, many writers appear to think that character may be largely read in the form and consistency of the features as imparted by temperament. Dr. Pritchard in the "Cyclopedia of Practical Medicine" says: "States of the mind are so connected with affections of the body that it is impossible for any one, who considers the facts which presents themselves, to doubt that with every temperament particular mental qualities must be associated, although it is manifest that many writers have indulged their fancy on this subject and have gone into more full and minute details than experience will establish."

Dr. Henry Maudsley, in his "Pathology of the Mind," says: "It is not amiss to reflect, when weighing beliefs, that belief is very much a matter of temperament;" and Dr. Alexander Stewart, who has published a work recently on the subject, concludes with many of the authors from whom he quotes that "the

portraits of eminent men will generally be found to show a marked connection between the temperament and the character of the work that has led to fame; that the face tapering to the chin from a broad or high forehead, small features and a long neck—the nervous temperament—characterize the greater number of those whose fame rests on works in which imagination reigns; and that a square face, broad features and a short neck, the physical characteristics of the three other pure temperaments, the Sanguine, the Bilious and the Lymphatic characterize, more or less, the greater number of those famous works are of a more material or physical character."

It matters not whether we adopt this old classification, that has generally received the sanction of medical writers, wherever reference to any distinction in temperamental types is made in their treatises, or the later and I think better classification of the American phrenological writers with its three divisions of, Mental, Motive and Vital, the expression of the type singly and in combination is seen in the mould of the features, in the bony outline, in the manner and conduct. Let us take a simple description of a case in which the Mental is very dominant, and in which, therefore, as Dr. Jacques would say, we have the "nervous type" of the Mental, a slight frame of stature rarely above the medium, a high and broad forehead with a marked disproportion between the cranium and the face, the features being small and tapering downward to a rather pointed chin. The skin and hair are fine and soft, the eyes gray or blue, and usually brilliant; the complexion is pale or light, or it may be sallow; the expres-

sion is lively and intelligent, and the movements quick and vivacious.

In this era of great mental effort it is not an extraordinary occurrence to meet with a person in whom these marks of constitution are associated, and variations of them that occasion no uncertainty in the mind of the observer as to their typical distinction, are common enough. Such expressive marks become easy to estimate with respect to their bearing on character, and the intelligent member of society acquires a prompt, off-hand facility in reading the general nature mentally and physically of persons so constituted.

Thus it is also with the other types of temperament; when sharply pronounced, there is little difficulty about forming the judgment, but in proportion, as they approach an even, symmetrical combination, more and more study and experience are necessary for their analysis. The great majority of men and women exhibit one of the temperaments in distinct excess, and that with the average observer is the key to the bent of character. This view is substantially correct, but the careful student of human nature knows that culture, association, the impress of acquired habits must be taken into account before final judgment.

In the walks of fashionable life people are seen who possess so striking an endowment of the motive temperament that we term it bilious, according to the old definition; they are swarthy in complexion, of large frame, strong features, powerful muscles, broad heads, and in movement impress us with a sense of emphasis and strength. We expect to hear a coarse, strident voice, and language,

and whose terms are terse, forcible, but we are surprised by their gentleness in manner and tone, by the fulness and polish of their conversation, and by the quiet ease and dignity of their bearing. Education, the refining influences of good society, and long continued study for the purposes of self-improvement have in time subdued the rude expression of their inherited type of physical constitution, and now it appears in a form that imparts a positive ease and strength to manner and language.

The character-reading of the masses, their "impressions" of this one or that are dependent chiefly upon form and feature, upon complexion and manner, therefore it is the temperament that is taken into account intelligently or ignorantly. Temperament is the basis of physiognomy, and he who claims to be a "physiognomist purely" is but an interpreter of the indications of temperament. The author of "New Physiognomy" lays down this law as one of the fundamental principles in human development: "The action proper to any particular physiognomical development, as well as the development itself is modified by temperament." If this fact were fairly understood and applied in practice, we should be enabled to construct a system of physiognomy upon a valid foundation, and the objection that is heard so frequently that physiognomy is only speculation, guessing or shrewd, would be overcome. The basis of physiology is regarded as essential to all normal argument with respect to the qualities and properties of man, and a category of principles can be constructed upon physiology that will give to physiognomy the definitions of science. No

phrenologist could ignore physical conditions, as they appear in the face and form, and expect to describe successfully the mental characteristics of a person; he would thus associate physiognomy in his examination of the data of his estimate, but it is clear that such physiognomy is quite free from the criticism of guess-work, as its connection with the solid parts of organization is palpable.

THE HEAT CENTER.

THE observations that have been conducted by physiologists, especially those of Europe, with regard to the location of centers in the brain, occasionally develop features that remind one who is familiar with the literature of Phrenology of opinions that have been expressed by examiners and writers from time to time in that sphere of scientific activity. It is reported that at the recent session of the Helvetian Society of Natural Sciences at Geneva one of the members, Professor Girard, offered an interesting account of some late experiments of his in Schiff's laboratory to ascertain the location of the heat center.

"These experiments, which were made on hares, have led him to conclude," we are told, "that the cerebral center of thermogenesis is the corpus striatum. Every lesion affecting this body in its middle part produces a pronounced hyperthermia, which does not result from spasm of the vaso-constrictor nerves of the skin, but from an augmentation of caloric production. Electric excitation of this region, which is followed by a marked augmentation of heat, justifies the assertion that the hyperthermia is a phenomenon of excitation and not paralysis. Moreover, after puncture and

irritation of this region of the cerebrum, there was a considerable increase in the quantity of nitrogen excreted in the urine, indicating an acceleration of the organic combustions; and this was accompanied by notable emaciation of the animal. Girard considers the thermogenetic centers as including not only this median portion of the striate body on both sides, but all the subjacent parts to the base of the brain. There is here an apparatus whose excitation increases the production of animal heat, and which probably concurs under physiological conditions to regulate heat productions."

Whatever this is worth, as a contribution from a high scientific source it will encourage some of our friends who are disposed to believe that an organ for heat or temperature exists in the base of the brain. It is not long since one of the students of the Institute wrote to us concerning some experiments of his with respect to such an organ, and appeared to be well satisfied of its existence and approximate location. But if Professor Girard is right the locality he marks would preclude attempts to estimate the influence of such an organ from cranial indications.

SELF-RESTRAINT. A quick temper is an unfortunate inheritance, but not an irremediable one. Let our young friends understand this as a fact and cease to bewail their weakness. Let them take matters seriously in hand and strive to modify the disposition by keeping a close watch upon themselves, by avoiding occasions of irritation, and those old associates whose temper is known to be readily excitable, like their own. Go, my hot-headed, explosive friend, with kind, good-natured people and cultivate their manner.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

SWALLOWING A FLY.—S. P. W.—No, such an accident is no more likely to be injurious than the swallowing of a grape seed. A timid, hysterical person might imagine all sorts of fearful things and worry himself or herself into illness ; but if birds can swallow large insects alive and thrive on them, it should not be expected that a little thing like a fly would hurt a man. In fact, at their tables, people eat and drink things that are more poisonous than house flies.

COLIC IN HORSES.—R. H.—We do not know any antidote for this common affection in horses and cattle, but we think that ammonia, belladonna, sulphur, chamomile flowers, and hyoscyamus are among the remedies used by veterinary surgeons. As the causes of the trouble in horses are not unlike those in the case of man, for instance—exposure to cold, dampness, draughts, eating improper things or overeating, or drinking too much cold water soon after violent exertion, we should advise as nearly similar treatment as it is possible to give, and for an outline of that I must refer you to the June number of the Phrenological. Of the drugs nux-vomica is considered a good remedy when the attack is the result of eating indigestible food, or of overeating or constipation. Dr. W. C. Lord, D. V. M., advises the mixture of nux-vomica alternating with tincture aconitum, and also enemas or injections of warm water, with fomentations of hot water applied to the abdomen. He speaks very favorably of this procedure. We should regard the enemas and fomentation as very important in severe cases. Perhaps some of our readers who are familiar with stock can supply more information. You speak of the water of Nebraska being strongly impregnated with alkali. If this be the case, we should expect its constant use to produce a chronic inflammation of the stomach and intestinal canal, unless the alkali were neutralized by proper agents.

PHRENOLOGY IN THE SCHOOLS.—Mrs. B.—We are pleased to hear of the movement in your section of Ohio, to introduce the study of mental science into the schools. We think that the better way for its successful study by the young is to have teachers learn the principles and methods of observation, and to present them orally in school, with illustrations from the living head. When taught in this way, children very quickly pick up the practical truths of the science, and are deeply interested. For the moral education of the young—a matter of most conspicuous importance now—there is nothing superior to the method of Phrenology.

LOGICAL AND DEMONSTRATIVE.—T. O. J.—If for an introduction to the study or reading of Phrenology, one takes up the small treatise entitled “Indications of Character,” and follows that with Hyde’s “True Basis of the Science of Mind,” and then reads “Brain and Mind,” or Combe’s “System,” he will obtain a very complete view of the scope of the science.

FOR A BLACK-EYE.—T. B.—If you can apply a wet compress immediately after the accident, and keep it freshened by occasionally rinsing in water, the tendency to congestion will be much reduced. An authority advises painting the bruised surface with the tincture or a strong infusion of *capsicum annuum* mixed with an equal bulk of mucilage of gum-arabic and the addition of a few drops of glycerine. This should be put on with a soft or camel’s-hair brush and allowed to dry on, and then a second and third coat. If this be done soon after the injury has been received, it will prevent in great part the bruised surface from turning black, because it is on account of the oxidation of the blood in the injured tissue that it shows the dark, livid color.

GRAHAM CRACKERS.—SUB.—In the Phrenological of a few years ago recipes were published on home cracker-making, one of which is the following as advised by “Mira Eaton.”—Ingredients.—One pint of cold water, and graham flour enough to knead very stiff. Stir the flour and water as stiff as you can with a spoon, then flour the kneading-board well and turn the dough upon it; knead graham flour in until the dough does not stick to the hands—then roll out very thin, cut in any desired shape, prick the forms with a fork to prevent blistering, and bake in a very hot oven twenty minutes to keep crisp; put the crackers in a box, in a dry closet.



Communications are invited on any topic of interest; the writer’s personal views and facts from his experience bearing on our subjects being preferred.

My Answer.—EDITOR OF THE JOURNAL.—In answer to the question, on the margin

of PHRENOLOGICAL JOURNAL, for August, pertaining to “HEADS AND FACES,” I can say that I have a copy of it, and have read it carefully and studiously. I have nearly all the principal Textbooks on the Science. I began to study it about seven years ago, and the little application I have been able to give it in my every-day life, being a poor mechanic, has tended to interest every power and faculty of my being. As an instance, one among the many that are likely to occur in the every-day life of any ordinary person, I submit the following, which occurred with me about two years ago. I was working in the shop one morning, when a man, wholly unknown to me, came in to get the loan of a saw for a short time. In the space of about a year previous, two saws had been borrowed from employes in this shop, and were never returned. As a matter of course, these circumstances occurred to my mind, and at first disposed me to refuse the man’s request—but for a moment only. The teachings of Phrenology came to my aid and whispered: “measure your man.” I did so, and concluded, in less time than it takes me to tell it, that the stranger was honest and that my saw would not “turn up missing” as the other two had done, and so I let him have it. Whereupon the foreman, who had witnessed the transaction, called to me: “do you know that man?” I answered, “No, I never saw him before.” He then remarked: “two other saws were taken away from here, and never brought back,” and rather insisted on my following the stranger to find out where he was going, and this I did, simply to satisfy the foreman. The stranger had told me that he wanted to do some work on — street. But, before starting out on my espionage, I told the foreman I knew my saw was in good hands, and would be returned, but if it was not returned in due time, I would not have anything more to do with Phrenology. But the borrower returned the saw as soon as he was through with it; thereby vindicating the teachings of the science of Phrenology, and sustaining my faith.

This, Mr. Editor, is one of fully a dozen or more incidents that have occurred within the range of my observation in the past five or six years.

You are virtually "casting bread on the waters that" not only "shall be" but is being "gathered" now as well as "many days hence." I think it is as little as we, who are so vastly benefited by and through the labors of those who "have borne the burden in the heat of the day," can do to tell it you.

GEORGE MARKLEY.

Our present notice of the PHRENOLOGICAL JOURNAL has peculiar interest in view of the recent death of Dr. Fowler, whose name will always be associated prominently with the science to the exposition of which this Journal is devoted. From month to month it is filled with the very best matter on this and cognate subjects anywhere to be found.—*Pittsburgh Christian Advocate.*

PERSONAL.

IN MEMORIAM.

To the memory of William E. Scott, who died in Austin City, Nevada, July 23d, 1864, these lines, written by his widow, are dedicated.

I kneel by the side of a loved one's grave,
And tears from my eyes are falling,
I press to my lips the last token he gave,
When the angel of death was calling.

The world is dreary and dark to me now,
There is not a gleam of gladness,
Shadows of sorrow have clouded my brow,
And my heart is breaking with sadness.

I weep that the one I love should sleep here,
With the lonely winds to sigh o'er him,
But memory, sweet memory will ever be
dear,

In the hour that my heart will deplore
him.

The winds may chant a funeral dirge,
In murmurings low o'er his head,
And sweet song birds their notes may change,
As they fly o'er his lonely bed.

He sleeps afar from his native land,
By his side no kindred rest,
While those who loved him may never be-
hold

His grave in the boundless west.

ALICE SCOTT.

MARRIED.—ANDERSON—BABBIT. At the residence of the bride's father, Amelias-

burgh, Ontario, Canada, 5th inst., by the Rev. Samuel McCauley. Alex. H. Anderson to Alma Blanche, only daughter of Elkanah Babbit, Esq.

Mr. Anderson is a student of the American Phrenological Institute, having attended the session of 1884, and has since that time been endeavoring to frame his life according to the teachings of his favorite science. He looks upon Phrenology as the only science that will enable mankind to make the best of this life, and at the same time to secure the blessings of the life which is to come.

MR. A. BRONSON ALCOTT has kept a journal ever since he was a boy, and as he was born in 1797, and has known intimately nearly every man of distinction in New England, from that time to the present, it ought to be interesting. This journal fills sixty volumes of neatly written manuscript, which will probably be given to the world after his death. Mr. Alcott is a helpless invalid, and spends the most of his time on a couch, asleep or looking over his books.

MME. CHRISTINE NILSSON, now Countess Casa Miranda, was informed years ago by an astrologer that she would have trouble from two causes—fire and lunatics. This prediction has been verified, for during the Chicago fire she lost \$20,000, and when Boston was burned her loss was said to be \$200,000. In New York, a crazy man followed her for a week, believing that the words addressed by Marguerite to Faust were intended for himself. In Chicago a poor deluded student wanted to marry her, and wrote passionate letters. One day he came in a superb sleigh drawn by four horses, to take his as he supposed affianced bride to church. Mr. Jarrett quieted him by saying: "You are late; Mlle. Nilsson has gone there to wait for you." The third insane person she had to do with was her former husband, M. Rouzeaud, who died in an asylum.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

"What book has helped you most in life?" I asked my friend, as home we took our way one day, and he replied, "My pocket-book."—*Vox Populi.*

There never was a good war, or a bad peace.

He that banquets every day never makes a good meal.—*Proverbs.*

To be thrown upon one's own resources is to be cast in the very lap of fortune; for our faculties then undergo a development and display an energy of which they were previously unsusceptible.

The Chinese have a thoughtful proverb: "The prison is shut night and day, yet it is always full; the temples are always open, and yet you find no one in them."

"Friendship, to natures large and comprehensive in sympathy, at once noble and tender, means attachment as warm and strong as life itself, enthusiasm of personal interest, trust unshaken through all things, faithfulness unto death.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

I like to believe all men honest, but I nebbber take the same patent medicine fur liver complaint an' de toofache, no matter how the label reads.

"What do you grow on this land?" he inquired of the farmer who was leaning over a fence inspecting a particularly barren piece of ground. "Grow lazy," was the satisfactory reply.

A lady was lamenting the ill-fortune which attended her affairs, when a friend, wishing to console her, bade her look upon the bright side.

"Oh," she sighed, "there seems to be no bright side."

"Then polish up the dark one," was the quick reply.

At a private christening in Twenty-seventh street, the other day, there were two babies as subjects, and a three-year-old brother as spectator. After the ceremony, the minister kindly took notice of the little chap, when the latter spoke up and asked: "Have you got all through washing 'em?"



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PUBLICATIONS RECEIVED.

NUMBER THIRTY-NINE OF OGILVIE'S POPULAR READINGS, contains nearly four hundred choice recitations and readings. Price, in paper, 30 cents. J. S. Ogilvie & Company, New York.

PHYSICAL CULTURE. How to gain and retain Health. By Jessie A. Fowler.

PHRENOLOGY IN THE HOME. A Lecture by Jessie A. Fowler.

These brochures, published by L. N. Fowler of London, are thoroughly practical expositions of their topics. Miss Fowler is well known as a teacher of physical culture, and her little book is not only an argument for systematic habits of exercise, but is also a convenient manual for home and school use.

The lecture on Phrenology is designed to answer certain pointed questions—for instance, this: How can Phrenology be made of practical and scientific use in our homes? In the presentation of her views the author shows much careful study of scientific data and proceeds in a logical order from beginning to end. On one point she is properly emphatic: the necessity of knowing on what character is founded before attempting to discipline or develop it.

THE MAVERICK NATIONAL BANK MANUAL. July 1st, 1887.

This convenient and useful volume has a wide application, as a few titles from its chapters will show. Historical Sketch of the National Debt, Credits of Foreign Nations, Water-works Bonds, Savings Banks Securities, Banks and Banking, Coinage and Currency, Land and Agriculture, Coal and Iron in the U. S. Designed to meet questions that occur to men in the sphere of fin-

ance mainly, it is useful to all classes, giving as it does a plain series of statements with more or less of tabulated detail drawn from official and other sources. It is not an argument for the continued existence of the national bank system, but certainly shows how large the volume of monetary affairs under the control of that system is.

THE HUMAN NATURE LIBRARY, Number for July, is devoted to the Principles, Proofs, etc., of Phrenology—a lecture by J. F. Tracey.

It is a clear statement in concise and pleasant style of the leading facts accepted by the advocates of Phrenological science, and by the majority of physiologists who believe in brain localization. Price 10 cts.

BROTHER AGAINST BROTHER; OR, THE TOMPKINS MYSTERY. By John R. Musiek, is a recent number of the "Fireside" series of stories issued by J. S. Ogilvie and Company of New York.

It has an assumed connection with the late war, and that permits an occasional mention of some incident that occurred in the course of military operations, but a love story of a rather intense character is the moving motive of the book, and the clashing of sabres and the rattle of musketry come in to help the passion of it.

THE WOMAN'S CHRISTIAN TEMPERANCE UNION is growing rapidly in volume and importance. If any one doubt this let him or her go to the New York headquarters, or to that department of the Union's work, superintended by Miss Colman, whose office is in the Bible House, and make some inquiry.

The numerous publications of note issued by the literary branch of the Union are a proof in themselves that the cause is growing. These are leaflets, touching questions most commonly asked, Readings on many topics, A White Cross Series, Manuals for Local Organizations. Periodicals like *The Union Signal*, *The Young Crusader*, and *The Journal of Heredity* Lesson Manuals, Song-books, etc. Nearly all these are written, edited or arranged by members of the Union, and they reflect the high intelligence, energy and capability of the earnest women engaged in the great contest with alcohol.

THE POST GRADUATE, is the Journal of the

New York Post Graduate Medical School and Hospital—and illustrates its work in the training of medical graduates and helping practitioners who are desirous to know more about their business. The July number is an interesting fasciculus of clinical notes. \$1.00 a year.

REPORT ON IMPROVED METHODS OF SEWAGE DISPOSAL AND WATER SUPPLIES. By C. W. Chancellor, M. D., Secretary State Board of Health for Md.

An interesting document, for which we are indebted to Mr. A. Le Marquand. It manifests what should be the agreeable fact to hygienists north and south: an active interest in matters affecting public health, especially that of centres of population. A review of methods recently adopted in Europe is given; that of Le Marquand, now in operation in Paris, being printed at some length, as it merits, and in discussing water supply valuable information is given on tests of purity and causes of pollution.

MEMORIAL OF THE NEW YORK LADIES HEALTH PROTECTIVE ASSOCIATION. To the Hon. Abraham S. Hewitt, Mayor of New York, on the subject of Street Cleaning. The ladies state the case in a business-like manner, and show how great are the shortcomings of the department in which rests the duty of keeping our big city's streets clean. We think that New York has a Mayor now who would reform the civil service of the metropolis, if he could; but finds that he has an Augean task. New York with all its great advantages of situation and drainage is notoriously unclean, and considerations of decency and health should unite the better class of her citizens in this one step toward a general improvement. We hope that the ladies will not give up their good work. Eliza J. Sparks is President and Margaret J. Hebert Secretary of this Association.

THE AMERICAN BOOKSELLER'S ILLUSTRATED ANNUAL BULLETIN of Books for Summer Reading—contains of course titles that relate chiefly to the amusements and recreative diversities of summer time. It is neatly illustrated with portraits of several of the later favorites, and designs popular books.

CURRENT EXCHANGES.

The Independent, New York.

Illustrated Graphic News, Cincinnati, Ohio.

Missionary Review, September, Princeton, N. J.

Our Little Men and Women, September. A charming number.

The Medical Advance, monthly, H. C. Allen. Ann Arbor, Michigan.

Building, New York. Architectural weekly. Excellently gotten up.

Phrenological Magazine for August, L. N. Fowler, London, England.

The Western Medical Reporter, weekly, Chicago, apparently holds its own.

Canadian Pharmaceutical Journal, Hamilton, Canada. Comprehensive and well edited.

The Eclectic Magazine, September, E. R. Pelton, New York. A rich edition; one of its striking articles is "Contemporary life and thought in China."

The Homiletic Review, September, New York. "The Labor Problem," and "The Preacher's Voice," are important papers. Also a criticism of Phillips Brooks doesn't mince matters.

Harper's Monthly, September, Harper Bros., New York. A rare number of this magazine. "The South American Yankee" is pleasant as well as informative reading; while the "Sons of the Steppes" give one a fair idea of the people and scenery.

The Christian at Work continues much in the same line as of old. The editorial on the Seybert Committee's "Expose of Spiritualism," seem to us marked with *ex parte* sentiment; J. N. Hallock. New York.

Journal of the American Akademie; Classicism and Christianity, as related, command a good deal of attention in late numbers of this representation of Platonic scholarship. A. Wilder, editor. Orange, N. J.

Civics; the first numbers of a specialty having reference to civil and political matters, and the organ of the growing society called the American Institute of Civics. The field is a broad one, and we wish success to the enterprise; monthly. American Institute of Civics. New York.

The New England Magazine, July, Boston. The sketch and portrait of Moses Brown, the patriarchal Quaker philanthropist, founder of Brown University, renders this number noteworthy.

The Current, weekly, Chicago.

New York Observer, weekly, New York.

Health Record, M. S. Purdy, M. D., Corning, N. Y.

St. Louis Photographer, August, Mrs. Fitzgibbons-Clark, St. Louis.

The Voice, monthly, E. S. Werner, New York.

Table Talk, monthly, September, Philadelphia.

Harper's Young People. Harper Bros., New York, Illustrated, weekly.

Massachusetts Ploughman. Continues to sustain New England husbandry, Boston.

Cincinnati Medical News, Dr. Thacker, Editor, Cincinnati. Up to the times and liberal.

Book Chat, June, New York. Concise review of latest books and notes on current publications.

Public Opinion, Washington and New York. Paragraphs from all sources on all topics.

The Sanitarian, July, New York. Purification of the water supply of cities is a thorough review of that important question from the pen of Albert R. Leeds, Ph. D.

The Century for September tells of Jefferson's home at Monticello. The instalment of the Lincoln Biography relates to the important era of his nomination for the Presidency. A Canaller's Life in New Jersey is picturesquely sketched, and Amateur Photography well illustrated.

The Quarterly Journal of Inebriety for August is an interesting number, as it contains a good report of the recent Congress in London, where its editor, Dr. T. D. Crothers, was in person to take notes, and represent the leading part American Science is enacting in this important field of humanitarian service.

Popular Science Monthly for September has Sleep and its Counterfeits, a good description of certain phases of hypnotism; Social Sustenance; Physiology of Freezing; A Sketch and Portrait of Audubon among its readable papers. We notice a rejoinder of Miss Gardener to Dr. Hammond which contains certain spicy allusions and is as keen as a razor in its criticism. Dr. H., we think, was a little careless in his statements a while ago, and reckoned not on the sort of foe he had to deal with. The liberality of the editor in admitting Miss G., although but a reasonable courtesy, is creditable.

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. PUNDITA RAMABAI.

(THE FOLLOWING SKETCH IS FROM A PERSONAL CONSULTATION.)

You have a great deal of active power; by that we mean the ability to set on fire your thoughts without waiting long. One will notice that your cheek bones are wide; that means excellent breathing power and the ability to oxidize the carbon and make a frame for thought and earnestness. There are people who are rich in digestive power; they have a great deal of unused consti-

tutional vigor, but they can't set it on fire and make it do something; now if you get an ounce of vitality you can burn it all up, as rifle powder properly adjusted is all burnt, and the full strength secured. Some kinds of powder don't more than half burn, and so give a very weak result.

You are liable to work too hard, to burn yourself out too early, and your study should be how to nourish the system, not how to get fresh air; you are half crazy for that anyway, but how to get something for the fresh air to burn as fuel, so as not to burn yourself out.

Your percepts are large, you gather knowledge rapidly. Few persons see as much with the same opportunity as you do, and you remember the facts, the phenomena, the history of your life and your surroundings; consequently you have the talents for literary and scientific culture, and you have especially power to teach others that which you have found out yourself. There are hundreds of people who are very wise, but they have no power of utterance and expression; if you will understand it, their knowledge is like beeswax in a jug, solid as a rock but very rich, and it takes a good deal of warming up to pour it out. Now what you know is more like kerosene in a pitcher, ready to be poured out on the instant.

You have artistic talent, you could learn to sketch, and draw, and make portraits especially. The faculty of Form is large, the eyes are wide apart, and you remember facts, outlines, configuration, can reproduce to your thought the looks of some person who is at a distance, or some structure; you can think just how certain rooms look when you are thousands of miles away, because you took a mental photograph of them at the time and all you have to do is to think enough to recall it.

Your language is large; you use words freely and readily and with uncommon fitness and facility. You are orderly in the line of thinking and act-

ing; you incline to become habituated to certain ways; you call them the best ways of doing what you have occasion to repeat.

You have strong sympathy, are quick to feel sorry or to rejoice with others, and you are prompt in taking in the situation where it is one of pathos and emotion.

Your face belongs to your father from the eye down to the corners of the mouth; the forehead belongs to the mother; you catch knowledge as naturally as a photographic instrument catches pictures, and your first thought is your best; that is womanly; but as soon as we get back toward the middle section of your head, where character comes in, then you resemble the masculine, and you are plucky, proud, persevering, headstrong, earnest, and you have courage to do or try to do that which many a woman would shrink back from. You are all the time trying to get more elbow room in the field of executiveness. For instance, if you were a teacher you would be excellent in transferring what you know to the minds of the pupils, but your power would not end there, it would just commence; your power is in your character more than it is in your talents. Your talents are feminine and intuitive; but your disposition gives you more strength, more positiveness, more push and executiveness than women generally have. The boy who is fortunate enough to inherit from his mother her intellect, gets the sagacity and tact which we attribute to you, and by inheriting his mother's sympathetic and affectionate nature and artistic and aesthetic dispositions, he gets what is especially valuable in woman, and by virtue of being a man he holds on to enough that is strong; now you step across the line and inherit your disposition from your father, and your talents from your mother, and that gives you the feminine quickness with the masculine self-reliance?

Now, there are very few women of

your weight and size that can command as much respect as you can from boys, men, and contrary and unmanageable girls that you might have under your control. There are few women of your strength that could be such a master of a horse as you would be; the horse would make up his mind somehow that he had got to do what you wanted done; it is not so much by muscular strength as it is by a sort of interior spirit that is masterful in its action. If you were teaching a school of boys and girls, and there were some big boys that might be strong enough to pick you up and carry you out of the schoolhouse, you would look at one and call his name, and he would wilt, because he is in the wrong, and he would not know what you were going to do about it, but would think it was best for him to retreat from his line of disobedience and bad conduct. There is a certain governing force in you and in human character, wherever it may be found, that is not measured by avoirdupois or mathematics. There is a certain kind of command in the word and look that is recognized by superior power, and it retreats, obeys, conforms, gives up.

You love justice because it is right, are ambitious to be approved, are sensitive about the opinions which good people entertain about you. You have dignity, you believe in yourself, stand on your own foundation, and are willing to take responsibilities or duties which belong to you; you never in your life have hid away from duty. Your feeling is "Here am I, Lord, send me." Some people say "Send by whom thou wilt, Lord, but send thou not by me;" that is not your plea; if the Lord wants you to do anything you say, "what there is of me is here and I will work."

You enjoy music, you see the funny side of things; you have a high temper when it is aroused, and it is indorsed by reason and justice. There are some things that we ought to be angry at and show indignation, and it does not take a

great while for you to get your righteous indignation harnessed when it ought to be, and then it counts.

You have force, pride, positiveness and integrity enough for a head that measures an inch and a half more than yours does, so that that part of your character is pretty strongly marked. Your capacity for loving is also strong, and those who enjoy your friendship find that it amounts to something, and whenever your love is centered it tells.

N. S.

The subject of the above sketch is, as at once inferred from the name, of Hindoo birth. According to the account published in her very interesting volume, "The High-Caste Hindoo Woman," in which she lays before the reader with much power of relation the social usages so powerfully affecting that class of women, she was born on a remote plateau of the Western Ghauts, and literally in the jungle, in April, 1858. Her father was a man somewhat advanced in age, her mother a young woman who had been educated in the lore of the Vedas, but her husband, much older, a teacher by profession, gave very considerable attention to the training of the little Ramabai. Perhaps the life of her early childhood is not altogether typical of that naturally belonging to Hindoo children, but, as related by herself, it is certainly interesting. She recalls with emotion lessons given in the morning twilight before the toilsome day had dawned; "the little maiden, heavy with sleep, was tenderly lifted from her bed upon the earth and awakened with many endearments and sweet mother words, while the birds about them in the forest chirped their morning songs, the lessons were repeated, no other book than the mother's lips being used."

When the girl was but nine years old the family were compelled to sell their little property to discharge debts that had been contracted, in accordance with rigid Hindoo custom, and then, almost penniless as well as homeless, they set

out upon pilgrimages. Young Ramabai was a very earnest student from her earliest years; she loved books, acquired a knowledge of several Hindoo dialects while traveling about. Her parents did not do with her as other Hindoos were in the habit of doing with their daughters—"throw me into the well of ignorance by giving me in marriage in my infancy"—but instructed her in what is deemed useful knowledge, and after the death of her parents, Ramabai, with a brother, traveled in different parts of the great continent of India, giving attention to the earnest advocacy of female education. Their caste compelled a certain exclusiveness which could be scarcely comprehended by the American reader, nevertheless they advocated female education, and especially that, before marriage, high-caste Hindoo girls should be instructed in Sanskrit and in their own vernacular according to the ancient Shastras.

In Calcutta the young Sanskrit scholar and lecturer created a real sensation by her advanced views and her scholarship; the learned Pundits of the city interviewed her and examined into her claims and conferred the distinguished title of "Sarasvata" publicly upon her. Shortly after this agreeable incident her brother died, and six months later she married a gentleman of Bengal who was a graduate of the Calcutta University. Scarcely, however, had two years passed before her husband was taken away by cholera.

The widow Ramabai now returned to her former occupation as a lecturer; she had won friends among the British residents of India, and through their advice appealed with much success to English audiences, and then re-entered upon the pilgrimage career. She went from city to city establishing societies, having the general name of Arya Mahila Somaj, the object being to promote education among native women and to discourage the custom of child marriage. Out of his effort has grown what has become

known to the English-speaking world as the National Association for supplying female medical aid to the women of India, a movement that has received the very earnest support of the Countess of Dufferin, who acts as its President.

Her association with English-speaking people appears to have awakened a sense of want of practical training for the work to which she had devoted herself; so she concluded to go to England and studying the language, acquire a knowledge of European methods of education. In the Ladies' College at Cheltenham she was given a position as Professor of Sanskrit, and there her unoccupied time was spent as a student in the college. She made rapid progress, and when two years later she heard of the success of a country woman and kinsman in America, who had studied medicine and who was about to receive her degree, she felt inspired with an irresistible desire to visit "the holy land," called America, and witness the success of her friend. This Hindoo Lady, Dr. Joshee, returned to India for the purpose of serving her sex at home. She was young, enthusiastic, highly educated, and altogether capable in the sphere which she had chosen, but, after her arrival in India, a few months passed before she was numbered among the dead, a victim to constitutional disease, consumption.

Ramabai's enthusiasm was enlisted in the system of Froebel, and she spent some time in acquiring a knowledge of his principles and methods, intending to introduce Kindergarten in India, where now she is. Pundita Ramabai, high-caste Brahmin woman, courageous daughter of the forest, educated, refined, by preference retaining the Hindoo mode of life as regards a vegetable diet, peculiarities of dress and so on, yet solemnly consecrated to the work of developing self-help among the women of India, is doing what she can in that most useful and honorable field, and the hopes of all who realize the state of social life in India are enlisted in her mission.

METAPHYSICS OR PHRENOLOGY—WHICH?

IT was my privilege, not long ago, to visit a Teachers' Institute; and a few things which came under my observation, and the thoughts which they suggested, may be of interest to the readers of the JOURNAL.

The subject of mental science occupied a prominent place on the program. It was presented by a lady of rare culture and high professional standing—in fact, she is considered one of the leading teachers of Indiana. Consequently, we may regard her instruction as an example of the best that can be given by those who represent the old school of metaphysics. Yet, to any one acquainted with Phrenology, it would be far from satisfactory.

She spoke of perception, conception, judgment, memory, as faculties of the mind, thus falling into the error of all the old philosophers in mistaking for a faculty a mode of action which is common to the intellectual faculties. If this theory be accepted there is no way to account for the fact that some persons perceive certain qualities of objects very easily while it is with extreme difficulty that they perceive certain other qualities. A person may perceive the form of an object readily, yet know nothing of its color; or he may perceive its size without taking note of its form. Were perception a single faculty, it is reasonable to infer that a person would be able to perceive one quality as readily as another. And so, if memory were a single faculty, there would be no such thing as a person having a good memory of events and a poor memory of dates, or a good memory of dates and a poor memory of names. But Phrenology clears up all these difficulties. It teaches that there is one faculty which relates to form, another to size, another to color, another to order, another to events, etc., and that perception, conception and memory are modes of action common to all of them. The same faculty which

perceives form remembers form, and the same faculty which perceives color also remembers color. Each one of these faculties acts through a certain portion of the brain which is called its organ. The ability of each faculty both to perceive and to remember is, other conditions being equal, in proportion to the size of its organ in the brain. By studying mind from this point of view it is not difficult to understand the mental natures of those whom we wish to instruct; but, if we take up the study of mind in the old way and speculate on "Intellect, Sensibility, and Will," we are unable to reach any definite conclusions, and soon find ourselves "in wandering mazes lost."

The speaker alluded briefly to dreams, to the great question of insanity, and to other forms of mental aberration. She remarked that these were phenomena which can not be accounted for. The metaphysician, perhaps, can not account clearly for them. But Phrenology furnishes a clear solution of them, and they afford almost incontrovertible proof of its truth.

She recommended that the teacher acquire a knowledge of each pupil's individual traits. But how is this to be done? Metaphysics would perhaps say: By being for a long time in contact with the pupil and learning to understand him through experience. Yet, while the experience is being gained, many golden opportunities and much valuable time might be lost. Phrenology says study his organic development. His character, his disposition, his intellectual capacity, his strength and weakness, his excesses and deficiencies, are written on his organization. It takes but a short time for a phrenologist to ascertain the leading traits of each pupil's character, to pick out the bright ones and the dull ones, the sly ones and the frank ones, the mischievous ones and the studious ones. He will know what kind of train-

ing each needs, and will be able to secure the greatest good to all. He will judge correctly in what branch of study each pupil will excel and in what one he will fail. Knowing how to educate all the faculties harmoniously, he will be able to adapt his training to the end which he wishes to accomplish.

As long as philosophers engaged in dreamy speculations concerning matter and force and their various phases, very little progress was made in natural science. But as soon as they began to observe the phenomena of nature, and to base their theories on a knowledge of facts, the whole circle of the sciences were rapidly developed. In like manner the expounders of Phrenology have based their teachings on observed facts, and, consequently, they appeal to nature as the strongest argument in favor of the truth of their science.

Which, then, is the most rational system of mental philosophy for teachers to adopt? Is it that which is based on the speculations of the scholars of the past, or that which has been gained through the direct study of nature? To those who are acquainted with both systems this is not a difficult question to answer.

The time is coming when teachers will have to decide which of these two systems they will adopt. They must either follow in the footsteps of the old theorists and speculate for an indefinite period upon abstruse questions which bear but little relation to the real science of mind, or they must accept as truth the teachings of nature, no matter whether they harmonize with former theories or not. Mental science is coming to the front. Is it to be Metaphysics or Phrenology—which?

H. S. BARTHOLOMEW.

SOME NOTABLE CHARACTERS OF THE DAY.—No. 2.

SPENCER F. BAIRD was born in Reading, Pennsylvania, on the third day of February, 1823. Being of Quaker parentage, he was sent to a school of his class in Maryland, and later entered Dickerson College, Pennsylvania, where he was graduated when about 17 years old. He was inclined to the study of nature and very fond of making pedestrian excursions for the purpose of collecting plants and observing the habits of animals. On one of these, he tramped 400 miles in 21 days, making 60 miles on the last day between day-break and night. The specimens which he collected in this way largely for his own cabinet, became later the foundation of the Museum connected with the Smithsonian Institution.

Meanwhile, he studied medicine, but did not graduate, the knowledge thus obtained being considered of value in his special pursuits; the Medical College of Philadelphia gave him in 1848 the degree of M. D., *honoris causa*.

He was appointed Professor of Natural History in Dickerson College, and later Professor of Chemistry. He seems to have exercised rather broad functions in his lectures to the students, as they included physiology, geometry and zoology.

In July, 1850, he was appointed Assistant Secretary of the Smithsonian Institution, and remained with that important establishment until his death. When Joseph Henry died in 1878, Prof. Baird was promoted to be official head of the Institution; there his duties were no sinecure, involving considerable mental labor and activity. The fine organization of it as now appears, was due to his executive ability. From 1850 to 1860 he devoted much time to Government expeditions, securing the interest of others in them and furnishing the appliances for collecting material; in this way the valuable collections of the Institute were largely increased.

Besides the usual routine work inci-

dental to his office as Assistant Secretary, Prof. Baird organized the system of international exchanges which has become one of the leading features of the Smithsonian, and to which the editor of the PHRENOLOGICAL JOURNAL is indebted for many valuable scientific works published abroad.

One of the most valuable features of Prof. Baird's scientific work relates to

what measures were expedient to prevent such diminution, if any were found, the undertaking expanded until at the time of his death it was tenfold more extensive and useful.

At the request of the United States Government he was present as advisory counsel at the Halifax Fishery Commission held in 1877, and the essay on Fish Culture which grew out of that service,



Spencer Baird

the Fish Commission ; he was appointed by President Grant in 1871 Commissioner, and from the simple beginning of an investigation to ascertain whether or not any diminution in the number of the food fishes of the coast and lakes of the United States had taken place, and

and which is deemed of very high value, is now in course of preparation for publication.

Prof. Baird's relation to science generally has been conspicuous, both on account of his personal interest in it, as well as on account of his position in the

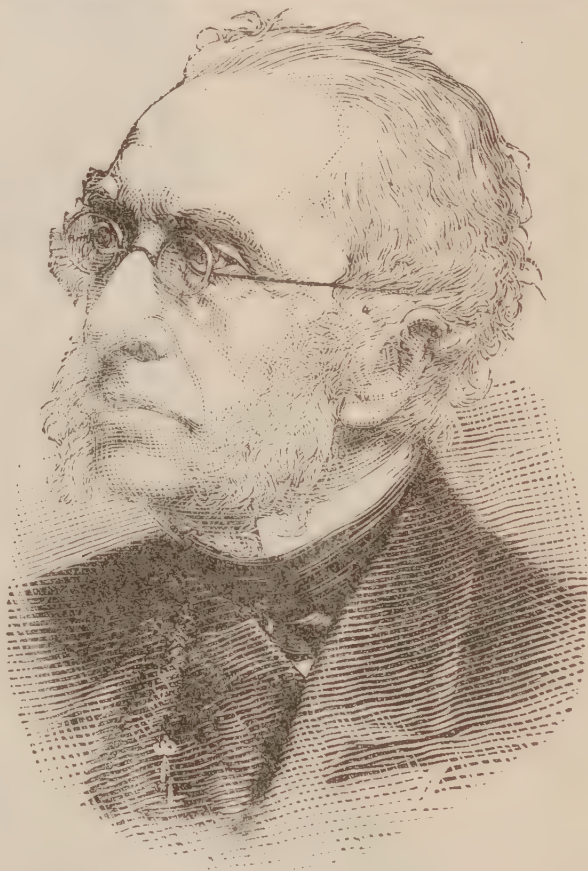
Smithsonian Institute. His literary work is something phenomenal; notes and papers and reports, contributions to periodicals and works of permanent value, forming a long list.

From the portrait, we infer that Prof. Baird possessed a very large and active brain; the faculties relating to observation were particularly large. He was a collector and a master of details. His was a mind that was ever hungry for information, one fact but added to his impulse, to his desire to learn more with regard to the subject in interest. He appears to have had a good vital organization, an earnest cast of sentiment, much force and impulse and sensitiveness. The breadth of his head indicates that he was a thorough worker and also keenly alive to esthetic impressions, and his temperament, in association with the coronal organs, shows a high degree of sensitiveness with regard to matters touching his personal reputation and capabilities.

ROBERT C. WINTHROP is suggested by the recent celebration in Philadelphia of the hundredth anniversary of the Federal Constitution, because of his relation to later events of national importance. He comes to us as a link that connects us with the early and great characters of our nation. He shows in the portrait an organization of much vigor and tenacity, the physical bottom and mental resolution that contribute to longevity. Nose, chin and mouth indicate vital capacity, and a character with conspicuous elements of force and steadfastness. The intellect is marked by the prominent brow, the faculties of perception being especially strong, rendering him ever alert for facts, and appreciative of their meaning. His head is broad and rounded in the region above and forward of the ear, showing him to be nice and refined in his tastes, and a natural organizer and adjuster of affairs. He has not dwelt in the atmosphere of theories and assumptions as a thinker,

but has been disposed to look for the solid facts and realities of nature and art and deal with them systematically and critically. He is a definite, precise man, and far from credulous; ambitious and rather sensitive to praise or detraction, but strong-willed and well-poised; at seventy-eight preserving an admirable balance of mind on both sides of it, the affectional and intellectual natures.

Mr. Winthrop was born in Boston in 1809, and finished his early education at



R. C. WINTHROP.

Harvard College in 1828, with much credit. Entering upon the study of law, a profession at that time more highly estimated than now, as becoming to a young man of spirit, ambition and scrupulous principle. He was fortunate in having the tutorship of Daniel Webster, and being associated with him for three years.

From his father and grandfather he inherited leanings toward politics; they and earlier ancestors occupy a creditable place in New England history; and he almost unconsciously followed such leanings. His name and professional

associations gave him prestige in the community, and his participation in the political movements and agitations of the second quarter of our era gave him rapid preferment.

In 1834 he was elected to the Massachusetts Legislature, being at the time but twenty-five years of age. He served in that body for six years, the latter three of which he was Speaker of the House. He early identified himself with the Whig party, and first became nationally prominent when he visited New York, in 1840, to attend a general Whig meeting. This same year he was elected to Congress. When he had served in that body for seven years, he was elected Speaker. Later on he was elected to succeed Webster in the Senate, and still later was a candidate for governor of his native State but failed of election.

Mr. Winthrop's speeches and addresses fill several volumes. They were powerful or delicate as the occasion demanded. They are the best exponent of the character of the man, showing his correct judgment, his clearness of thought, his adherence to the principles of freedom and practice, his interest in the progress of education, and his anxiety for the maintaining of public and private virtue.

He has been president of the Historical Society of Massachusetts, since 1855. He is a member of long standing in the Society of Arts and Sciences, the American Antiquarian Society and many others.

He was selected to be the orator of the day at the celebration of the completion of the Washington Monument, which the reader remembers; a proper honor, because fifty years before, when the corner stone was laid, his was the voice that rang out in expression of popular feeling.

The CZARINA of Russia has a stronger face than her sister, the Princess of Wales, and evidently a stronger physi-

cal organization. She has a good expression of the motive temperament, with, apparently, a good basis of the vital, and this combination imparts tenacity and vigor both to body and brain. The head appears to rise very high in the crown and to be rather prominent in the forehead over the eyes, and if such be the case, in life this woman, with a place so eminent, should be known for a disposition to inquire into affairs for herself and to be firm of purpose and practical in judgment; to have, indeed, a rather masculine type of intellect, and less susceptibility to the influences of mere sentiment than is



CZARINA OF RUSSIA.

shown by women generally. She should have a remarkable appreciation of form, or outline, and be orderly, neat and methodical in her taste. There is a kind expression that lends softness and attraction to the strong features and does not impress one with the idea of affectation. Most of the pictures of ladies nowadays are so touched and retouched by the photographer and artist, that they bear the marks of

artificiality, and most of the life and character of the original are lost, so that while the "counterfeit presentment" is pretty it is not a portrait. The Czarina, according to this representation is not a pretty woman, her features are too coarse and pronounced for that. She resembles her handsome sister, the Princess of Wales, enough to enable us to see readily the family likeness, but her face lacks the delicacy and symmetry of the Queen expectant of England. Yet there is a kind and winning look, a freedom from arrogance or hauteur, that we like, and we are disposed to credit her with elements of true womanhood. Her strength and vigor and positiveness are fitting to her relations in the imperial court of Russia, we dare say. Such are the relations of the Czar, such the dangers and trials he is required to face in this day of agitation, that he needs a wife who can stand up and co-operate with him, and afford him sympathy and support.

The Czarina is the daughter of Christian VIII., of Denmark. She was married to Alexander, of Russia, in 1866, at St. Petersburg, and became Czarina at the time he was crowned, at the death of his father, Alexander II. Her Danish title was Princess Dagmar. She has taken some prominent part in the affairs of Russia, and sought earnestly to avoid the breaking out of a war between England and her own country, which at times within a few years past seemed very imminent.

Unlike most traditions, that attribute certain great wars to woman's influence, from Helen of Troy, who called both men and gods to war for her sweet sake, down to the Ex-Empress Eugenie, who it is said used her influence and voice in favor of that fatal step taken by Napoleon III., which led to war with Germany, and to the overthrow of monarchy in France, to death for Napoleon and exile for Eugenie. Unlike these, the Czarina's name will go down

in the history of her nation and the hearts of mankind, as "the Czarina of Peace," who lulled to rest the Russian bear, and disturbed not the repose of the British lion.

With this face before us we may credit the wife of Alexander with such a benevolent motive, such a noble ambition.

DR. DWIGHT, the President of Yale College, has the head of a scholar and thinker. The quality is high, the brain massive in its proportions, and according to the portrait well-developed in the superior regions. Evidently he is a man of much culture, naturally inclined to



REV. TIMOTHY DWIGHT, D. D.

the side of subjects involving thought, especially on the side of theory and philosophy; the classics, metaphysics and language would have special fascination in such a brain. Evidently he is a good executive, capable of planning and organizing forces well, and prudent in his management; he has more discretion, more wisdom, so to speak, than boldness or audacity. He believes in gradual progression, not sudden, lofty and extended flights; he is not a man of brilliant

or sudden dashes. He would not take the fort by a sudden onset, but deliberately prepare his enginery and when everything was ready the grand assault, although it might be a surprise to the enemy, would be but a natural outcome. He has dignity and refinement in a high degree.

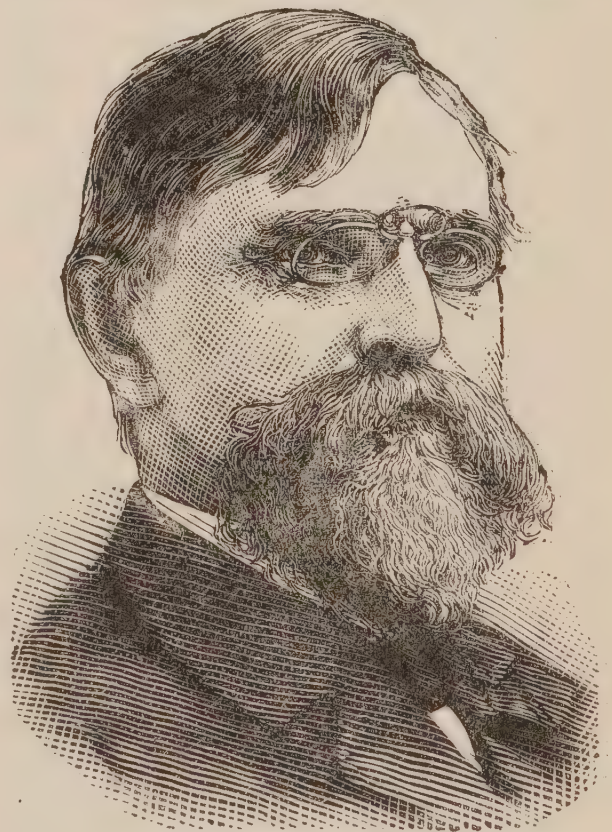
Timothy Dwight, D. D., is a grandson of the Dr. Timothy Dwight who was President of Yale from 1795 to 1817, his own father being James Dwight, a merchant of Norwich, Conn. He entered Yale College at the age of seventeen, and was graduated in 1849. Two years later he became a tutor in the College while pursuing a course of study in the theological seminary. In 1855 he resigned his tutorship, and the next spring went to Europe, where he studied at Bonn and Berlin, returning to this country in 1858. He was then made Buckingham Professor of Sacred Literature in the Theological School, and continued in that relation until his election to the Presidency, now. He was a member of the American Committee for the Revision of the English Version of the Bible.

Coming of good Connecticut stock, thoroughly identified with Yale through ancestral ties and through his own life from boyhood, an experienced and very popular instructor, a careful student of the theory and practice of education, especially as formulated through the modern discussions as to means and methods, a man of sound and varied learning, and holding an entirely adequate social prominence, we think that President Dwight has set out on his new course with bright auspices, and the prospect of making his administration both prosperous and useful. That his selection was a conservative triumph there is no doubt, but it is quite possible that the progressive school will find less reason to fear too much of holding back than they had anticipated when the choice was still in doubt.

The harmony shown in his choice,

when we consider the wide differences of opinion that, after Dr. Porter's retirement, had been developed among graduates in public discussions upon the future policy of the College, was a marked compliment to the new President. Those, too, who had sought in the retirement of the greatly esteemed and respected ex-President an opportunity for cutting loose from the custom which selects the President of the College from among Congregational clergymen will nevertheless be glad to see in Dr. Dwight so excellent a representative of the traditional class of Yale College governors.

LEW WALLACE, the author of that rather popular book, "*Ben Hur*," appears by the portrait to be possessed of a strong physical organization, and a rather



LEW WALLACE.

robust mind. The fulness of the middle part of the face, the prominence of the cheekbones, and plumpness of the nose, show superior vital capacity; at the same time the bony framework is emphasized well in the face, and indicates that he possesses a strong disposition to activity. From very early life his tendency would be toward travel, explor-

ation, pioneering. With a strong will and a good deal of insistence he would be likely to carry into effect purposes of whose value he was convinced. The development of the crown and upper part of the forehead impresses us that he is a man of original inquiry with regard to moral and religious matters, not one to be controlled or led by convention or mere sympathetic learnings. He has the organization that would adapt one to be a soldier, to follow that department of engineering that leads a man into new fields, new countries. The expression generally of the face is that of force, spirit and positiveness.

Lew Wallace is now about 60 years of age. In early life he was related to the bar, having studied law under the direction of his father, who was at that time Governor of Indiana. He was active in his profession but didn't confine himself to it particularly; there were literary leanings which were indicated by occasional contributions to the press; he was also interested in art, and became something of a painter.

When the war with Mexico opened, he enlisted and rose to be second Lieutenant. In Mexico he became interested in the history of the country and made personal investigations which are incorporated with some of his later writings.

Politics had its attraction for him, and the result of his participation was election to the Legislature of his State.

At the outset of the late war, being at the time Adjutant-General of Indiana, he volunteered for three months' service, and on the expiration of that period, he re-entered the army and rapidly rose to positions of importance, finally being appointed Major-General.

He seems to have shown little or no interest in affairs for many years after the close of the war, but the appearance of a romance having Mexico for its theatre, attracted considerable attention. In 1878 President Hayes appointed him Governor of New Mexico, and while there he wrote "Ben Hur," which came from the press in 1880. This is a story of Jewish life in the time of Christ, and is for the most part devotional in character.

Personally he is a man of large and robust physique, with rather small, piercing eyes, a carriage that is erect and impressive, and a manner that inclines one to regard him as very observant. During a three years' residence in Constantinople, where he served as United States Minister to Turkey, he gave considerable attention to literary and archaeological matters, and made himself acceptable to the natives.

MESMERISM FORTY YEARS AGO.—No. 2.

DANNY was under the influence one day and we were trying to find a task for him. He was under the care of Henry Baily at the time, and a friend, Mr. John Casey, said to him in a low voice, "Did not my father buy a new hat from you yesterday?" "Yes," answered Baily, "I sold him an eighteen shilling tile."

"Then make Danny go for it to-night at thirty-one minutes past seven. You can make some excuse to Pap for sending for it." To this Baily agreed, and the usual question being put to him as to his willingness to do as requested when out

of the trance and being answered in the affirmative, he was told he was to go to the house of Mr. Casey, Sr., and tell him that he, Baily, had sent for the new hat he had bought and not to come without it. "You are to go at thirty-one minutes past seven to-night." "And," added Casey, "Kick it before you all the way home." "Yes, sir," answered Danny. "Now, John Casey," said Baily, "he will do this as sure as light is light, and you will have to pay for a new one to replace it." "All right," said Casey, "If he does as I told you I'll pay for it,

but you mustn't tell Pap that I had anything to do with it."

Exactly as the clock hands pointed to the indicated time Danny dashed out of doors and down the street, without once looking at the clock or taking the least notice of any of us who were watching his movements for some time. In all such cases we were most particular not to give a patient the least hint as to what he had promised to do, nor at what time, and took good care that none of the witnesses did so either. He reached Mr. Casey's house almost breathless, and having received the hat, the first thing he did with it was to toss it up and as it came down he gave it a vicious kick that divided the crown; then he kept kicking it before him until he reached the hat store, followed by one of the old-fashioned "guardians of the night," known as "Charlies," and Mr. Casey, Sr., who in their turn were followed by a mob of men, women and boys who had congregated to "see de fun."

The night guardian wanted to carry Danny to the "Watchus," but on a British shilling being slipped into his not unwilling hand it had the power of making him change his mind. The whole affair was explained to Mr. Casey, who, when assured that a new hat was at his service, enjoyed the joke as well as any of us. The mob finding nothing further to engage its attention, sneaked away, not, however, before one old lady gave it as her sincere opinion that "musmurism" was a pure invention of the devil, and she advised us very strongly to give up its practice "or it would surely convey us all down to a certain hot place in double quick time."

Danny could recognize any person whom he had ever known, not by the voice but by merely holding the wrist, doctor fashion, between his finger and thumb. That he had no chance of doing so by sight was certain, as a piece of gummed paper was pasted over each eye and a handkerchief tied over them. This we had been practicing for about three

or four weeks, when one day while he held the wrist of a young man in the usual way, he suddenly, to our great surprise, commenced to describe his state of health. When asked how he knew anything about it, he said he "could see his 'innards,'" meaning his lungs, stomach, etc. We could not get a more satisfactory answer from him. Doctors questioned him as to the relative position of those organs, but his answers were more ridiculous than correct. To this accomplishment he added another—that of fortune-teller. Of course we had nothing to do with his pretensions to prophecy, but he got into the habit somehow and carried it on with all the ease and assurance of any "son of a seventh son." I do not know if any of his prophecies were ever fulfilled, but I well recollect a case in which one of them at least came to pass as nearly as he had foretold. It was this: he was holding the wrist of a young fellow one day, when among several things of little account he told him that "tobacco would be his ruin." Those present at the time laughed, and thinking that he only took that way of informing the young man that he used too much of the "weed" for his own good, they advised him to join an anti-smoking society and burn his *meerschau*m. About two years after Danny's prophecy this very man rented a house and lot on the outskirts of the town, where he dwelt and raised tobacco in the garden, which, as it reached maturity, was seized by the British government as contraband and destroyed. The duty on imported tobacco is so great that the home growth of the article is strictly prohibited, the grower being liable to one year's imprisonment and forfeiture of crop. The young man escaped to the United States, where he now lives.

While we were thus employed there came to the town an American named Barnum,—not the great showman—who advertised himself as a "Professor of Mesmerism" and issued bills in which he promised great things to every one who

attended his *seances* at the ballroom of the Courthouse, the admission being only one shilling (24 cents). Mr. Barnum took rooms in the very next house to the hat store, where he had not been long ensconced before he heard of our amateur performances, and paid us an informal visit and called frequently to see us at work. Whether he meant it or not, I can not say, but he told us that we knew more about mesmerism than he did. He requested us to bring Danny some evening to his lodgings as his wife would like to see him in the trance. We did so and the boy behaved right well, he even surpassed himself. After going through a variety of performances, he was requested to tell whom he held by the wrist. When it came to Mrs. Barnum's turn he said :

"I know who you are, but I don't know your name." "Shall I tell you?" inquired Barnum. "Yes, sir, if you please." "It's Ellenor Barnum." "No, it ain't." "Why, her given name is Ellenor, and she is my wife!" "She ain't your wife, she's your —!" This we afterward learned was really the fact. The boy had spoken so plainly and with such emphasis that we were all dumbfounded. I recollect that I felt my face flushing all over, but I made my escape from that room in double quick time. The Bailys and Doc Mahony waited only while awakening Danny, when they too beat a hasty retreat. Mr. Barnum fled the second day following to escape being mobbed. It seems he was a mere charlatan, and, like a great many others, was ignorant of the science. He employed three boys to help him carry on his chicanery. He either would not or could not pay them what he agreed to do, so they gave him away. The newspapers took it up and spread the history of the cheat, which not only kept Barnum from again fooling the people of that county, but prevented other pretenders from taking his place.

It was such charlatans that disgusted

the people with mesmerism. They were so often humbugged by them that they eventually came to the belief that there was nothing in it but a scheme to make money and nothing more.

Doctors Paisley and Fairfield dropped in to see us one evening. They had a reason for doing so. They were aware that Danny was able to describe things that were several streets away from where he was, and wished to test his abilities to the utmost in that respect. They were not satisfied that he was able to do so unless some person or persons were in collusion with him, and they resolved to change the position of the movable articles in their drawing-rooms and add other things that did not belong to such places. Neither of the doctors were to tell each other or any one else what the changes were, and they even went so far in their plans for secrecy as to lock the doors and pocket the keys. They were also aware that Danny had never been in the houses, and could not therefore call memory to his aid. We agreed to this test case and appointed the following Monday night as the time. They were on hand in season, and we were ready too. When asked if he would go to Dr. Paisley's house and up to the drawing-room and describe what he saw there, he instantly answered, "Yes, sir," and in a few seconds he said, "I'm there."

"What do you see?" "I see that all the pictures have their faces turned to the wall." "Can you describe any of them?" "Yes, sir." He did describe each of them in his own way, so as to leave no doubt of his being able to see their fronts, although to other eyes the backs alone were visible. One was a picture of Napoleon the First on his white horse "Marengo," which he immediately recognized, as there were thousands of them at that time scattered throughout the south of Ireland. Another was the portrait in oil of the doctor himself. "Do you see anything else?" "I see an *ould* skeleton : it looks like

that of a girl, but you can't frighten me with it." "Where is it?" "Sitting on a sofa and has a book in its hand."

Doctor Fairfield then took his turn, but Danny came out conqueror. They seemed convinced that after all there was something more in mesmerism than they had previously believed, but to our great chagrin they would not acknowledge it. When the question was put to them relative to what they now thought of the science, they "retired within themselves," smiled and merely said, "They were not prepared to say just then,"—and they never did say.

Before they left we invited them to call on us on the following Monday evening, and we would show them something that would really surprise them. This was what we called the *human chain*. They came at the appointed time, and we were prepared for the test. We had got together about twelve young girls and as many young men. These we placed one on each step of two flights of stairs, alternating the sexes (we chose boys and girls as we knew they would attend more willingly than adults, "for the fun of it at least"). Any amateur can easily try this experiment; he can not fail. We then caused them to link the thumbs of their hands together, as they stood, thus forming a human chain that reached from the patient to the lowest room of the house, where the doctors and several other spectators were assembled. When Danny was mesmerized the first man of

the chain placed his hand in his, and all was complete and ready. The two medical men were then informed that they were at liberty to whisper anything they chose into the left hand of the last person forming the chain, and in so low a whisper that even he should scarcely hear it, and it would be answered or repeated by Danny, who was up in the room two flights of stairs above, and could not possibly hear what was so whispered. Each physician in his turn whispered such words or short sentences as he saw fit. When questions were asked, they were correctly answered; and when a repetition of words was required they came almost instantly. One of the doctors used some medical term, and was quickly told "that it was 'pothecary's Latin, and he didn't know that lingo," which created a general laugh. The boy stood the test for more than an hour, and no doubt he gave the sceptics plenty of food for thought in regard to mesmerism.

I could relate many more instances of the powers of Danny and other patients, but they would read too much like repetitions of those already given to be pleasing to the general reader, and would not add any more information on the subject.

Mesmerism is not dead by any means; in fact it is reviving, and the new generation is taking it in hand, and will place it where it belongs—among the acknowledged sciences.

WM. O'GORMAN.

MURMUR NOT.

Murmur not—

At nature's actions,
Changing all our thoughts and plans,
Marring now our joyous households,
As the floods devast the lands.

Murmur not—

Through pain and sorrow,
Toiling onward day by day;
Striving—though it seems but useless—
Seeking for the perfect way.

Murmur not—

Oh, gentle reader,
At the changes time hath made,

All things die—but live forever—

Thus our waitings are repaid.

Murmur not—

For endless ages
Will, sometime, our loved ones bring;
Let our hearts and faces pleading,
Lead us to the eternal spring.

Murmur not—

The still voice answers;
For the path our fathers trod
If, with love and truth be followed,
Leads us on to rest—and God.

AN AMERICAN THEOSOPHIST.

THE WEALTH OF THE SOUTHERN PINES.

THE beauty of the pines and their have fulfilled their mission is suggestive
 fadeless green is not the only of unwritten poems too grand for
 dower with which they came upon the utterance in any known language.



FIG. 1.—THE "BOX" AND "HACKS."

earth. There is a stately grandeur "The sweet breathed pines" have
 belonging to the entire family, if climate brought healing to wounded hearts as
 and accident have not defrauded them well as to feeble bodies. They have



FIG. 2.—"DIPPING."

of their inheritance. The music of their brought inspiration to pencil and brush,
 rustling differs from that of other forest which in turn have brought fame to the
 trees. And the fall of the needles that artists.

Aside from the poetic, artistic and health-giving associations of the pines their commercial value is of great moment, especially that branch of the family from which is obtained the turpentine, resin and tar.

The long-leaved pine of the Southern States furnishes the chief source of supply of turpentine, resin, tar and pitch. This tree grows from the north-eastern boundary of North Carolina, along the Atlantic coast, to Florida, across that State to the Gulf of Mexico, and thence to Louisiana, in a belt averaging one hundred miles in width.

piece at each end of the half moon. This is the commencement of the regular season, and the boxes are now all tasked off. A "task" is usually ten thousand boxes, but we have known hands to tend eighteen thousand. These must be cornered once, and "hacked" about six times, from the first of spring until into November. The dipping (shown in Fig. 2) is done by task work, too, so many barrels or boxes per day being a task. This is accomplished with a spoon-shaped instrument and a peculiar twist of the wrist, only well-done by long practice. Two dippers generally attend one hacker.

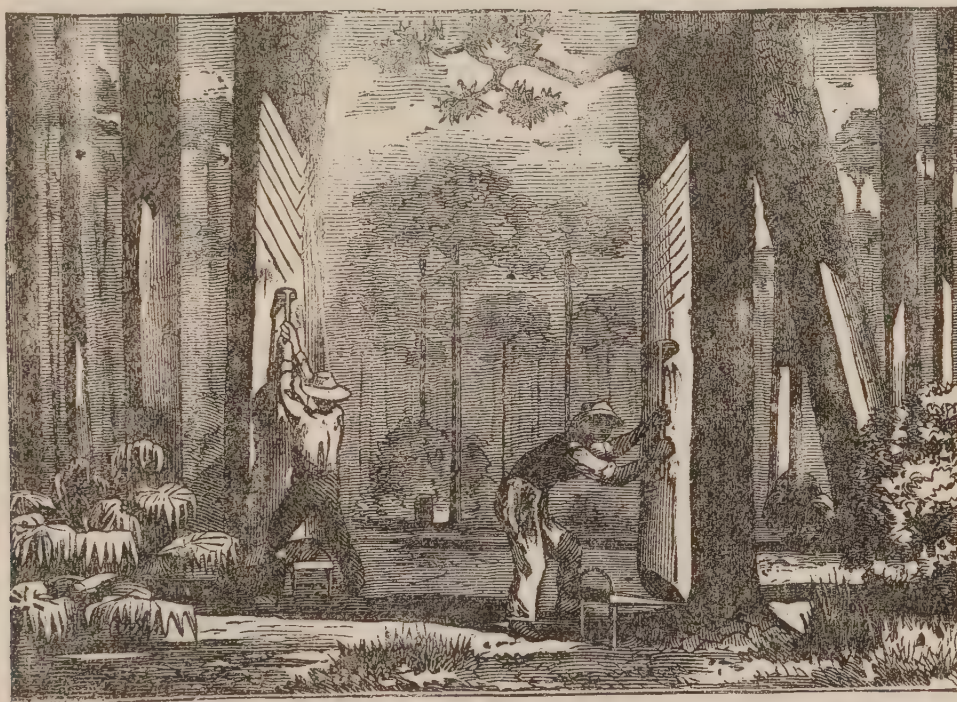


FIG. 3.—GATHERING THE "SCRAPE."

The first step is to obtain the crude turpentine. This is the natural juice of the pine tree, and it is sometimes called white turpentine and gum turpentine. It is a mixture of the essential oil known as spirits of turpentine and of resin. A half-moon-shaped box is cut in the tree, as near as possible to the surface of the ground. The shape of this "box" will be seen in Figs. 1, 2, 3 and 4. The box cutting commences about the first of December and continues till March—perhaps a few weeks longer if the spring is late. After cutting, the boxes are "cornered" by taking out a triangular

Hacking is the making a groove-shaped cut on each side, downward to the center of the half moon. The grooves can be seen in all the cuts.

The "hacker" is used with a downward stroke, and has at the lower end of the handle a weight of lead or iron, to give great impetus to the blow. The barrels for filling are placed at intervals through the woods; the dipper gathers his gum in a rude bucket, and empties it into the barrels, which, when filled, are hauled off. A frequent mode of hauling is seen in Fig. 1; the same cut shows a primitive but cheap mode of

"rolling" tar to market. Both articles are frequently rafted to a seaport between sticks of hewn timber.

The first year's operation produces "virgin dip," the second "yellow dip," window-glass resins. It yields about seven gallons of spirits, and not quite three-fourths of a barrel of resin to the barrel (two hundred and eighty pounds). Yellow dip yields over three-fourths of

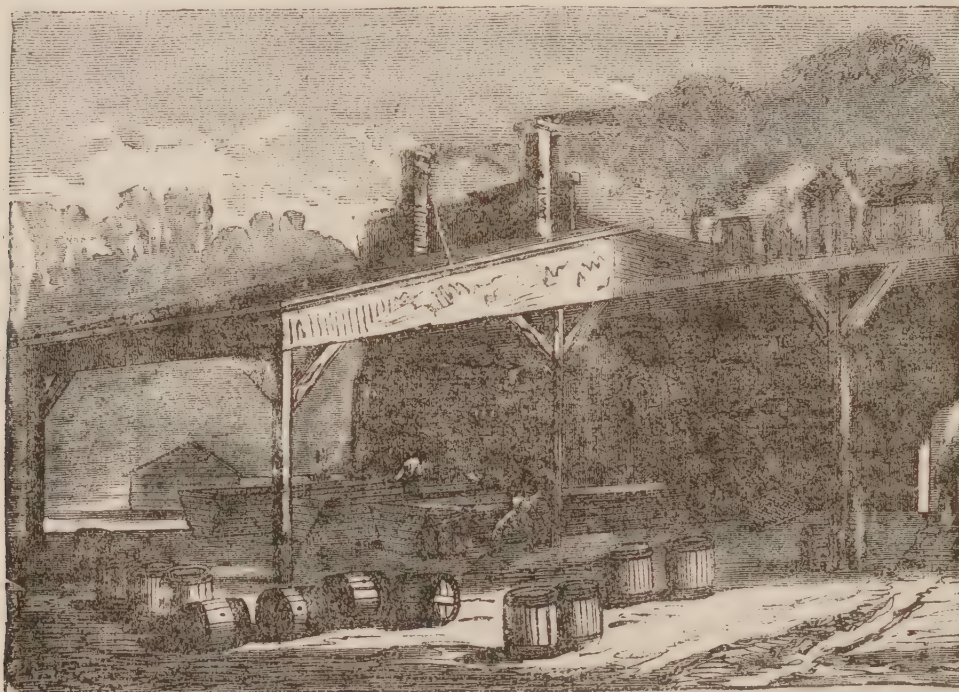


FIG. 4.—DISTILLING THE TURPENTINE.

the third some common yellow dip and resin, and about six gallons of spirits to the two hundred and eighty pounds of the further product of the trees is all "scrape." The virgin dip is, gum. Scrape yields about the same.



FIG. 5.—THE DISTILLERY YARD.

when carefully gathered, a honey-like "Scrape" is the gum which gathers on the face of the tree or box when worked up three, four or more feet higher. It are produced No. 1, pale, extra, and

is a white and cheesy like substance. The operation of chipping the box face and gathering the scrape is seen in Fig. 3. With care a very light resin can be made from it.

The operation of distilling the gum is carried on in turnip-shaped copper stills of a capacity from ten barrels up to sixty—the ordinary size being twenty and thirty barrels. They are bricked up at the sides, and the fire strikes directly on the bottom. The top has a large hole for the “cap,” which connects with the worm for condensing the spirits, and a small hole through which the “stiller” examines the state of his charge, and lets in water as it may be deemed necessary. The resin, being a residuum, is let off on one side into vats, through strainers, from which it is dipped into barrels to cool. Many attempts have been made to use steam as a heating agent, but not yet with success. If the resin is not entirely free of either spirits or water it is opaque and loses value.

The rear of the stills and the resin vats are shown in Fig. 5. Probably the largest distillery in the country is at Wilmington, N. C.

In trees deadened by fire, stumps of trees cut down when the sap is up, and old box trees left standing, a peculiar transformation of the wood takes place; all its pores become filled with pitchy matter, it increases greatly in weight,

and will take fire almost as readily as gunpowder. In this state it is called “light wood,” because it is used for kindling, and with the poor as a substitute for candles or other light. The smothered burning of this wood is the source of tar. The wood is split into billets three or four feet long and about three inches in diameter. To form a tar kiln the operation is commenced by scooping out of the ground a saucer-shaped foundation, making a hole in its middle, and thence running a wooden spout outside the rim of the foundation. Billets of wood are then placed radiating to this center hole and piled upward, each upper and outer stick lapping a little over, so that when finished, the pile resembles a cone with the point cut off, small end down; logs of wood and green twigs are then piled around, and the kiln thus made is covered with dirt, the top as well as sides. The fire is then lighted at the top eaves of the kiln, and the tar trickles down to the center hole, whence it runs out through the spout. A kiln yields fifty, one hundred or more barrels of tar, according to its size. Large iron retorts have been used, but the project is not sufficiently greater or more cleanly to pay for increased cost. In the process of distillation tar and pitch are obtained. Pitch is tar boiled down until all its volatile matter is driven off.

THE HUMAN ORGANIZATION AND RELIGION.

IT is now one of the accepted doctrines of physiology that the brain is the organ or instrument of mind. It is not the cause of intellect, emotion and will, but the instrument through which they act on other minds, and reveal their presence to our senses and reason. In other words the living brain and nervous system conditions the exercise of thought, feeling and volition in men and animals. The body is the soul's instrument of action on

external nature. Through the senses the soul receives impressions from the objective, material universe, and through the nervous and mechanical systems of the body, takes hold of, uses, controls and appropriates the material things and forces of nature. The brain, nervous and mechanical systems are parts of the human organism and condition the action of the human soul, in this life and this world, in all directions, at all times, on all questions, and

in reference to all interests. The intellect, emotions and will are all engaged in religious thought, feeling and action, and as these are all conditioned in their activities by the organism, it follows that it conditions and influences the whole religious life and character.

There is no religion without thought, emotion and action, and as these are all conditioned by the organism, it must condition all forms of religion.

These are self-evident propositions, and their truth is revealed in their very statement.

The organism conditions all life and experience, all development, history and institutions, and as there is religious life, religious experience, religious development, religious character, religious history and religious institutions, it conditions all the forms in which the religious nature of man manifests its presence and power.

The doctrine of the localization of organs in the brain, which was first taught by the science of Phrenology, is now received by the most advanced writers on physiology in Europe and America. Though there is controversy in regard to where the different organs are located in the brain, the fact of localization is conceded. The science of Phrenology, which first revealed this fact in brain physiology, has located the moral and religious organs in the crown or top head; and the history of the physiology of the brain shows its truth. I have examined hundreds of living heads, and the correct drawings of hundreds of men and women with whom I had no personal acquaintance,

and I have never met a man or woman of fine moral and religious character who did not have well-developed religious organs. The universal testimony of practical phrenologists will sustain or confirm this statement. This shows the relation of organic structure to religious life and character. Insanity is a brain disease—a disease of the organ or instrument of mind, and not of the mind itself. How could we have the different forms of religious insanity, if the religious life and character were not affected by the organism? This would be impossible, unless the religious nature made use of the brain as its organ and instrument.

Religion as it grows out of man's sense of dependence and conscious weakness must have organic relations, as the condition of the organism materially affects our conscious strength or weakness. Commercial panics and seasons of business depression are generally followed by seasons of general religious revival. Why is this? Evidently because they convince man of his dependence, and lower the tone of his nervous organism. He feels the need of divine help and seeks it.

The criticism of religious revivals as being attended with so much animal excitement is not justified by the facts. The excitement exists, but presents no just ground for unfavorable criticism. History shows there is no great forward movement without excitement, and science shows that all excitement has its animal side and organic relations, for the reason that man is in part an animal organism. WM. TUCKER, D.D.

GOING TO JOHN.

“GOING north, madam?”

“No, ma’am.”

“Going south, then?”

“I don’t know, ma’am.”

“Why, there are only two ways to go.”

“I didn’t know. I was never on the cars. I’m waiting for the train to go to John.”

“John? There is no town called John.

Where is it?”

"Oh! John's my son. He's out in Kansas on a claim."

"I'm going right to Kansas myself. You intend to visit?"

"No, ma'am."

She said it with a sigh so heart-burdened the stranger was touched.

"John sick?"

"No."

The evasive tone, the look of pain in the furrowed face, were noticed by the stylish lady as the gray head bowed upon the toil-marked hand. She wanted to hear her story; to help her.

"Excuse me—John in trouble?"

"No, no—I'm in trouble. Trouble my old heart never thought to see."

"The train does not come for some time. Here, rest your head upon my cloak."

"You are kind. If my own were so I shouldn't be in trouble to-night."

"What is your trouble? May be I can help you."

"It's hard to tell it to strangers, but my old heart is too full to keep it back. When I was left a widow with the three children, I thought it was more than I could bear; but it wasn't bad as this—"

The stranger waited till she recovered her voice to go on.

"I had only the cottage and my willing hands. I toiled early and late all the years till John could help me. Then we kept the girls at school, John and me. They were married not long ago. Married rich, too, as the world goes. John sold the cottage, sent me to the city to live with them and he went West to begin for himself. He said he had provided for the girls, and they would provide for me now."

Her voice choked with emotion. The stranger waited in silence.

"I went to them in the city. I went to Mary's first. She lived in a great house with servants to wait on her; a house many times larger than the little cottage—but I soon found there wasn't room enough for me—"

The tears stood in the lines of her

cheeks. The ticket agent came out softly, stirred the fire, and went back. After a pause she continued:

"I went to Martha's—went with a pain in my heart I never felt before. I was willing to do anything so as not to be a burden. But that wasn't it. I found they were ashamed of my bent old body and my withered face—ashamed of my rough, wrinkled hands—made so toiling for them—"

The tears came thick and fast now. The stranger's hand rested carelessly on the gray head.

"At last they told me I must live at a boarding house, and they'd keep me there. I couldn't say anything back. My heart was too full of pain. I wrote to John what they were going to do. He wrote right back, a long, kind letter for me to come right to him. I always had a home while he had a roof, he said. To come right there and stay as long as I lived. That his mother should never go out to strangers. So I'm going to John. He's got only his rough hands and his great warm heart—but there's room for his old mother—God bless—him—"

The stranger brushed a tear from her fair cheek and awaited the conclusion.

"Some day when I am gone where I'll never trouble them again, Mary and Martha will think of it all. Some day when the hands that toiled for them are folded and still; when the eyes that watched over them through many a weary night are closed forever; when the little old body, bent with the burdens it bore for them, is put away where it can never shame them—"

The agent drew his hand quickly before his eyes, and went out as if to look for the train. The stranger's jeweled fingers stroked the gray locks, while the tears of sorrow and the tears of sympathy fell together. The weary heart was unburdened. Soothed by a touch of sympathy the troubled soul yielded to the longing for rest, and she fell asleep. The agent went noiselessly about his duties

that he might not wake her. As the fair stranger watched she saw a smile on the careworn face. The lips moved. She bent down to hear.

"I'm doing it for Mary and Martha. They'll take care of me sometime."

She was dreaming of the days in the little cottage—of the fond hopes which inspired her, long before she learned, with a broken heart, that some day she would turn, homeless in the world, to go to John.

TWILIGHT.

The shadows are veiling the brow of the hills,
And vapors are soothing the murmuring rills,
While twilight, the daughter of sunshine and shade,
Is queen of the evening, in glory arrayed.

She gracefully mantles the waning of day,
And welcomes the evening in golden array,
Yet softens the glimmering curtain of light
With shadows that melt on the bosom of night.

Triumphant she rides on the billows of fire,
With chaplet of jewels in queenly attire;
In gold-tilted armor she flashes her blade,
And marshals the stars in their nightly parade!

With coursers unheeded, undaunted they run,
Whose footsteps all follow the path of the sun:
When softly unfolding her curtain of blue,
All spangled with silver, she waves her adieu.

Thus onward forever with banners unfurled,
Her halo of glory enraptures the world;
While sentinel stars on the borders of night,
Now herald the vast constellations of light.

In silence its millions of systems revolved;
In silence its problems are ever unsolved;
In silence we gaze on the boundless domains,
Where infinite order and harmony reigns.

When, lo! from the verge of the measureless deep,

Where numberless ages all silently sleep,
Aurora emerges from cycles unborn,
With twilight to hail the glad tidings of morn.

United they mingle in loving embrace,
Expanding their pinions new regions to grace;
Dissolving the shadows with orient light,
And melting the stars from the bosom of night;

While earth, in response to the language of flowers,
In rapture arouses from star-lighted bowers;
Unveiling her features she wendeth her way
To the radiant realms of the monarch of day.

The birds sweetly carol their matinal lays,
And nature responds with her chorus of praise;
While dewdrops that fell by invisible showers
Are jewels aflame on the bosom of flowers.

Thus oft in our pathway from darkness forlorn
The teardrops of night are the jewels of morn;
And hopes that are buried and shrouded in gloom,
Like seeds are well-planted in fragrance to bloom.

Every sigh that is hushed on the bosom of night
Is a song as it wakens, and welcomes the light;
While hope, brightly dawning, illumines the way
From twilight of morning to infinite day.

WARREN SUMNER BARTON.

Paterson, N. J.

"A GIRL'S PROBLEM."—Further.

I SHOULDN'T be surprised, Margaret MacKensie, if you felt that the friend who pillaged your waste basket, and cast its whirling flakes of storm upon the world, is a somewhat officious and impertinent party. But I assure you I have found no study of late so curious and interesting as the figures of this same girl's problem, upon which she has tried to do a little earnest, private ciphering, with results apparently not very satisfactory to herself, though giving to the speculative observer exceedingly clear and emphatic indices of character.

There is no doubt, Miss Margaret MacKensie, that you are a young lady of extremely strong convictions and very resolute, determined action, and it will depend altogether on your choice of interests and occupations whether you develop into a tediously fussy, bustling woman, driving with tremendous force at the trifling details of life, or whether you round to the generous proportions of a free, untrammelled nature, with broad, full comprehension, serene, fair judgment, and every power strengthened and expanded by exercise in the work best adapted to your capacities, and closest to your sympathy and love.

There are multitudes of men and women who fall into the first class of disagreeably energetic drivellers from pure lack of any adequate aim to lift and enlarge their thought, and to determine their position, place and use in the world.

Probably the majority of these are quite unconscious of their latent faculties, and attribute their discontent and wasted power entirely to some external circumstances over which, it is believed, they had no control.

And, indeed, it is the most difficult of things to choose deliberately a pursuit in life, where there is not so absolute a force of talent that there can be no

possibility of mistake, however contrary to its election the genius may be pushed by unfavorable influences. The saddest of failures is a life warped and shrunk by an occupation utterly uncongenial, and ill adapted to the individual powers, but the world is full of such wrecks. For the ignorance and inexperience of youth make it an easy victim to the whims and prejudices of advisers who rarely take the character of the subject into consideration, and the necessity of earning the means of livelihood is a compelling force, dragging thousands into employments wholly distasteful and unendurable except for the rewards. Frequently and almost inevitably, in the country, there is a restriction of choice which wider acquaintance with the world and its diversity of uses is liable to reveal, too late, very often, for the expansion of cramped and fettered faculties in directions that would have been earlier sought had there been given any clue to their existence.

The grand social scheme of co-operative industries will, without doubt, correct such evils by bringing to bear upon the development of its young factors the influence of all grades of employment, each highest and most ennobling to him, or to her, who can best perform it. But this educative power is yet, perhaps, a long way off, and what may be done under present conditions is all that is left us to consider.

Really, the case being so perplexing in the view of men, it would seem that any woman who could be content in the sphere of domestic life, which is acknowledged wholly hers, might avoid the bewilderments, embarrassments and mistakes that attend the seeking of an outside profession.

Yet, I assure you, I am the last to gainsay her right to free choice in any field which attracts her, and would give every favoring word and influence to

the fulfillment of her aspirations, however lofty and far-reaching, or eccentric and peculiar they might be. Nevertheless, the elements of conquest are part and parcel of herself, and the chances of success are based on her own interior force of character rather than on the external aid of advantageous circumstances.

I must say, then, as I might have said to your brother, Tom, my dear, young lady: Be honestly and earnestly sure of the thing you want to do, and are capable of doing, and strike out your own way to the accomplishment of what you feel to be a rational, well-defined purpose. You will go more unerringly to your work, and encounter fewer impediments in fearlessly taking your own course, than in striving timidly to follow the confusing and conflicting counsels of the multitude of advisers who will rush to your assistance, with words of warning and exhortation, at the first suggestion of your choice. Not, indeed, that you may hope to shun obstacles in any case, or escape cutting disappointments and blighting discouragements that would crush the ambition of a nature less strongly fortified by resolution than yours, my friend, but as long as you keep faith in yourself, and press steadily forward you will not be overcome, however you may shake and tremble sometimes at the roaring of the lions in your way.

In saying this I abrogate my privilege of offering advice, do I not? Yet, I may express my earnest, cordial sympathy with your desire to test, by practical experiment, a woman's ideas of home architecture in which she, of all others, is most deeply interested. In my own building schemes I feel frequently the need of suggestions, that would lend some refining grace and softness to a work which rarely satisfies me. As a rule, men are too much given to utilitarian principles, and mathematical precision to conceive any plan of

which these are not the controlling element, and a delicate and harmonious blending of beauty with use comes of chance rather than of purpose in their architectural designs. Often there is a haunting perception of a good that is not grasped, or a sense, at least, of the need which there seems no faculty to supply, but the conventional model is approved, and the feminine ideal remains a beautiful phantom, awaiting a woman brave and strong enough to give it form and expression, when all the world will hail it with glad recognition.

I can but hope, Miss Margaret, that you will work out faithfully your own ideas of the subject you take in hand, unbiased by the canons of custom, and unhampered by any arbitrary rule of art beyond the foundation laws which command your earliest attention, and which you ignore at the cost of all that you aim to accomplish.

You will study, of course, the various orders of architecture, ancient and modern, not so much with a view to copy as to receive suggestive aids to the development of original plans, which are, after all, my friend, only new combinations, modifications and improvements of the old. There is a vast field for more delicate and less formal workers, who may give to unsatisfied seekers an occasional fulfilment of possibilities which they have vaguely imagined, and you need have no fear that any honest effort of yours in this direction will fail of respectful recognition and appreciation, if deserved.

Were I in your place—not presuming to counsel in the least, understand—I should seek a practical training in mechanical principles by apprenticeship to the best workman I could conveniently find, leaving the acquirements and finish of schools until I had justified my faith by demonstration of the possession of a talent deserving and demanding the broadest cultivation and widest exercise.

If there is any help which I can

render you, I shall be very happy, at any time, to respond to your call. Whatever message you may feel inclined to address to me, in care of the editors

who have given your letter to the public, will be promptly and cheerfully answered. Very truly, your friend,

JOHN HAMILTON, ARCHITECT.

THE COMIC SIDE OF BIRD AND ANIMAL LIFE.

SOME writers have endeavored to show on the authority of that famous philosopher, Hobbes, that man is the only "animal" that can laugh—but there seems to be a difference of opinion on that subject—and in the following quotation I give the reader the benefit of the doubt. "There are animals that both laugh and weep. There are, on the contrary, races of men, like the American Indians and Cingalese Veddas, which do not laugh.

Two essentials are needed in order to produce the physical phenomenon of laughter in man—first, facial, vocal, or other muscles including the diaphragm, and second, the emotions or ideas which give rise to laughter. Certain animals possess both these essentials. The gorilla possesses the facial muscles, and Darwin claims that various monkeys have them. All the mammalia, in common with man, have the diaphragm, which is capable of rapid relaxation and contraction as well as spasmodic action. The chimpanzee is said to smile. The smile of the titi monkey is a playful one. The dog can both smile and grin, whether affection or pleasure, hypocrisy, or cunning dictate. Dogs distinguish the different kinds of laughter, they note the distinction between that which is good humored and that which is sarcastic. They are sensitive to ridicule, yet not unfrequently try to produce laughter in man, and deep is their mortification if they fail. Romanes tells us of a Skye terrier that tried to amuse his master and provoke his laughter by certain tricks it had taught itself, and was sulky if its efforts proved fruitless. An orang-outang in the London Zoological Gardens showed every sign of pleasure when its practical jokes excited men's laughter, and Rev.

Dr. Wood records the instance of a tame jackdaw who enjoyed the fun of boys' games like leapfrog and tag as much as the boys did themselves.

The statement that there are races of men that do not laugh lacks confirmation and throws a shadow upon what the writer has to say about the "laughing birds and beasts."

The parrot is a capital laugher. He laughs at his own practical jokes. White, of Selbourne, speaks of the heartiness of laughter in the woodpecker. A pet magpie of Jesse's, he says in that incomparable "History of Selbourne," had a laugh that was so hearty, joyous and natural that no one who heard it could help joining in it. There are tales of certain swallows who on the successful issue of a practical joke played by them on a cat, seemed each to set up a laugh at the disappointed enemy very like the laugh of a young child when tickled. Miss Cobbe says the goose has, perhaps, the keenest appreciation of humor of any animal, unless it be her own arch enemy, the fox? And she illustrates this assertion by the narrative of a practical joke played on a number of pigs by a flock of geese. The poor porkers were caused to run the gauntlet down a lane of geese biting at them with their bills, simply to frighten them, and that the geese might enjoy the terror and squealing of the pigs.

"One of my horses," says Baker Pasha, "out of pure amusement, kicks at the men as they pass, and having succeeded several times in kicking them into the river, he perseveres in the fun, I believe, for lack of other enjoyment."

There is a certain hyena which, from the peculiarity of its cry, is styled the

laughing hyena, and in Australia there is a bird—a kingfisher—which is called for a similar reason the laughing jackass. Its notes strongly resemble a rude, powerful laugh. The great African traveler, Livingstone, speaks of the African brown Ibis, whose cry is a loud ha-ha-ha!

As it is true that certain animals possess the physical qualifications for laughter, so also is it correct that they possess all the apparatus for shedding tears. The dog, horse, elephant, bear, cat, donkey, mule, various deer, soko, chimpanzee, mandril, titi, or other monkeys or apes, cattle, camel, giraffe, shed tears under emotions of grief and sorrow. The parrot does not shed tears, but possesses the kindred power of sobbing. Chimpanzees will weep at dread of punishment, monkeys and elephants on account of disappointment or mortification, the Cingalese elephant on account of captivity and confinement, the titi from fear, terror or fright, the stag at bay and caged rat from despair, certain monkeys because they are pitied, and the young soko, says Dr. Livingstone, out of mere pettishness or non-compliance with his whims.

Mrs. Burton says she has seen in the Syrian desert "tears roll down camels' cheeks with thirst." Some one speaking of a mule crippled by a two-inch nail in his foot: "His face was the picture of pain and despair. Tears streamed out of his eyes." Dr. Livingstone records the instance of a young soko, which, if

not taken up in the arms like a child, when it desired and appealed to be so carried, engaged in the most bitter human-like weeping. Dr. Boerlage shot a female (mother) ape in Java that fell mortally wounded from a tree clasping the young one in her arms, and she died weeping.

A giraffe, wounded by a rifle shot, was also found to have tears trickling from the lashes of his dark, humid eyes. Gordon Cumming, the African traveler, speaks of large tears trickling from the eyes of a dying elephant. Some old rats, finding a young one dead by drowning, wiped the tears from their eyes with their forepaws, says the *Animal World*. Instances might be enumerated without limit to show that certain animals have both the physical requirements for grins and tears, and are susceptible to the same emotions that cause tears and laughter in man.

It may be said with certainty that the animal kingdom easily distinguishes friends from foes. Cruelty to animals is forbidden by the laws of God and by the laws of man. All living things shrink from physical pain. Birds and beasts show great affection for their offspring, and will run dangerous risks to protect them from the assaults of their enemies, but whether or not they have that sense and sensitiveness which will cause them to laugh when pleased and weep when disappointed and hurt is a question I shall not assume the province of determining. GEORGE W. BUNGAY.

JULIUS CESAR'S TEMPERAMENT.

OF Julius Cæsar we have tolerably full descriptions, so that we are enabled to determine with a good deal of exactness the nature of his physiology.

"He was a tall, well-made man, rather slender than stout, with a high, but not broad forehead, long, pale face, with a large mouth, and dark sparkling eyes. His nose was a well-proportioned one

and of the true Roman type, though not so strongly marked as in some of his contemporaries. He was considered one of the handsomest men of his time." His vanity seems to have been marked, as was evident not only in his ordinary dealings with men, but in his dress and manner; becoming bald early in life, he showed a rather marked sensitiveness

about it, and tried as far as possible to conceal it by bringing forward the hair from the back part of his head. With all the honors that were conferred upon him by the Senate, that which seems to have given him the most delight was the privilege of wearing the laurel wreath

his mouth was regular, the lips rather full, giving to the lower part of the face an expression of kindliness, while his breadth of forehead indicated full development of his intellectual faculties. His face was full, at least in youth, but in the busts which were made toward the



JULIUS CÆSAR.

constantly, that helping much to cover his bare poll.

In Louis Napoleon's life of Cæsar the following description is given of him. "His eyes were dark, his glance penetrating and his complexion colorless; his nose straight and somewhat thick,

close of his life his features are thinner and bear the traces of fatigue. His voice was sonorous and vibrating, his gestures noble and an air of dignity pervaded his whole person. His constitution which at first was delicate grew robust by sober living and by his habit of exposing him-

self to the inclemency of the seasons. Accustomed from his youth to manly exercises he was a bold horseman and he supported with ease privations and fatigues. Habitually abstemious, his health was not weakened by excessive labor, nor by excessive pleasure."

Such was great Cæsar's physical constitution, such the blending of its qualities. He had been well educated, and practice enabled him to wield a rather ready pen, so that he could indicate the part of a historian with respect to his own military operations, but the directness and strength of the man are seen in his writing, as with little attempt at display he describes his marches and battles and the characteristics of the people against whom he had operated.

The bilious or strongly evolved phases of the motive temperament imparted activity and power to thought and movement; he was ambitious and his mental power contributed to his becoming a leader of the Roman people. The greatness of the warrior was consistent with the eminence of the politician. Probably he has no equal, taking him altogether, in Roman history, and as a soldier probably no modern captain is up to his level with the exception of Napoleon.

Michelet calls Cæsar, "the man of humanity," as he loved the people, next to his own advancement, and even the despised Jews counted him as a friend and mourned his death.

From "The Physical Factors in Character."

No. 3, HUMAN NATURE LIBRARY.

THE INSTITUTE.

THE late session of the American Institute of Phrenology was one of the most successful in the history of the Institute. Forty students received the Certificate from the hand of the President at the exercises that closed the course of lectures. Among these students were ladies and gentlemen of education and standing in their respective spheres of life. As usual the most distant sections of the country were represented. One student came from Spain, while Canada sent two, who would be a credit to any community. The interest in the lectures delivered by the professors in the different departments continued from first to last, in fact rose with the progress of the course, and frequently displayed itself by a positive enthusiasm.

The sentiment of the students with regard to the objects of the Institute and their consideration of the manner in which its work is conducted is well shown in the following.

RESOLUTIONS OF THE CLASS OF 1887.

1st. That whereas the study of the human mind has in all ages engaged the attention of the thoughtful and educated,

and whereas the study of mind by reflection on consciousness must result in a multiplicity of doctrines, each bearing the impress of the mental state and capability of its author, and whereas Phrenology is a mental Philosophy founded on the anatomy and physiology of the brain, we recognize in this Science the system, by which alone we can understand and determine mental manifestations.

2d. That we recognize in the American Institute of Phrenology, with its staff of educated and experienced professors, an institution of great value and importance, and we most heartily commend it to all students of Anthropology in its varied and interesting aspects.

3d. That we can not sufficiently express our obligation and gratitude to our efficient and devoted Teachers for their uniform courtesy and kindness, and the zeal with which they have sought to make us masters of the important subjects embraced in the course of instruction.

4th. Resolved: That we commend to the public the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH as an instructive and interesting Magazine, believing that its perusal would do much to improve the mental growth and physical health of the people.

Dated Oct. 14, '87.

H. F. ORVIS.
W. J. HUNTER.
F. A. FARISS.

Committee.



HEALTH EXPERIENCE OF AN AGED MAN.

IF experience is the dearest, it is, if well-made, the surest teacher. Indeed, after all our theories and splendid achievements in science, experience is their only sure foundation. Hence the importance of apparatus in our colleges to demonstrate the facts constituting the different branches of a scientific course.

However much readers may differ in opinions about health, disease, and its cure, in one proposition there can be little room for doubt or diversity. Of all sciences, the laws of health are of the first importance. A sound body, maintaining a sound mind, is the treasure above all others—it is in gospel phrase, “the pearl of great price.” Gaining all else and losing this, we are poor, and worrying in a life scarcely worth living.

The experience of an aged man—near seventy-six—given in the simplest, truest words, may be of some value to the readers of this journal.

As early as in 1836 I settled and commenced the practice of law in Illinois. Born and reared in Kentucky, with scarcely a ray of pure hygienic light, I knew of no hygienic living. My good mother, having a large volume of brain, and drinking strong tea, suffered much under spells of headache. Somehow getting the idea that tea was certainly the occasion, if not the cause of these

pains, feeling them at times myself, I quit the use of that beverage nor ever contracted the use of coffee, which soon began to take its place. This negative hygiene was about all I knew for the first fifteen years of my professional life. By this time I became feeble and consulted an eminent physician for relief. He told me that my stomach was impaired, and unable to digest the food I was putting in it. I asked him if he had any way of curing it. He said, if, indeed, drugs could cure any diseases, they surely had not as yet cured a case of dyspepsia. Then I wished to know what was to be done. He asked if I had ever made a horse's back sore, and if so, which was the better way to heal it. Replying that the worst case I ever had was cured by taking and keeping the saddle off, the wound cleaned with soft water, and the animal in a shaded piece of blue-grass Kentucky pasture. Said he, you have the cure of dyspepsia. Unsaddle your stomach, put nothing more but the pure graham crackers, a little rice and fruit in it, keep your skin from head to foot clean, exercise gently and regularly in out-door air at some light hoeing in the garden, or with a light saw and ax at your wood pile, and your stomach, general health and strength will recover. This I tried quite imperfectly to do; and after taking

a journey from the Mississippi River to Maine, returned home to more effectually follow my doctor's prescription. In this I was much assisted by one of Dr. Jennings' books on hygiene.

Every week's experience in my simple fare and morning bath, in my garden, at my wood pile, confirmed the hygienic theory. I learned, especially as I read Dr. R. T. Trall's writings, that the cure was not in the drugs, that they did not act on the system or any part of it, but the vitality of the body acted on the drug. I learned, moreover, that nature never caused sickness, but it comes by violating her laws of health, and the way to get well was by ceasing to do evil, and learning to do well. Cease the cause and we cease the effect. Invariably I found the cure came from the *vis medicatrix naturæ*.

My habits were "early to bed and early to rise," enjoying the fresh morning air, breathing deeply, and exercising before breakfast.

Tobacco I've never touched but once, when, of course, it made me sick, nor alcoholic liquor in any form since my eighteenth year. Then a good Presbyterian preacher's sermon convinced me that the vile stuff was evil, only evil, and that continually. Sick or well, sink or swim, survive or perish, from that day to this I have stood entirely aloof from it.

Believing that the eye was made for only the single purpose of seeing, that the ear was for hearing, and the stomach for digesting pure food, putting that into chyme and chyile with which to supply the natural waste of the system, I have tried so to use it. Indigestible articles, including all condiments, I have

used as seldom and in as small quantities as possible. At home on our home table, I can wholly avoid these unnatural excitants. Excepting on two occasions, after traveling and overeating at very unhygienic tables, I have not had an hour's illness for twenty years. I abstained on the first occasion from food for three days, walked through the lovely park at Albany, and lectured the fourth day. The second spell was at Jacksonville, Fla., I then drank tepid water to cleanse out my stomach, bathed, put a compress on my back where the pain was severe, and was nearly restored the next morning.

A few months ago, failing to prepare my stomach for a sea voyage, I took passage at New York for Fernandina, Fla., and suffered much with seasickness for three days. My remedy was a total fast, and had the trip and the intolerable sickness lasted Dr. Tanner's forty days, I may have gotten up a second edition to his wonderful experience. As it was I recovered more than a day before the end of our voyage, and thenceforth endured the rolling of the ship with impunity.

Spending over three months in the cool northern clime—mostly in Maine—and returning to Florida in the midst of our hottest weather, I keep my health even better than those who have remained through the summer, and live in the common fashion of the times.

My age is near seventy-six, I can walk twenty miles a day, read, write, and thread needles, without glasses. As my appetite is keener, and food purer than in my earlier days, it is enjoyed the better.

W. PERKINS.

FOOD AND WORK.—A calculation reveals the fact that a hard working person uses about $8\frac{1}{2}$ pounds of food and drink daily on the average. The profit which the body gets on the transaction has been calculated. The energy stored up in $8\frac{1}{2}$ pounds of food ought to raise 3,400 tons one foot high. Most of this

energy, however, is expended in keeping the body warm and its functions active. About one-tenth can be spent in our bodily movements or in work. The profit, then, on the process is about ten per cent. This is enough to raise 340 tons one foot high each day.

COUNTRY VISITING.

ONE of our young monthlies published recently the lamentations of an English woman over the formal "Drawing Rooms" in which our British society cousins occasionally indulge. By very contrast, in all except the utter stupidity of the affair, it reminds us of a time-honored American custom, equally lamentable, viewed either from a hygienic or an intellectual point of view. This is the "visiting" practice of our rural districts, where eating beyond measure and gossip without limit are the order of the day.

It begins in the fall after the farmer has husked his corn and killed his pigs, and his wife has made and stuffed her sausage, pressed her headcheese and pickled her "souse."

There is now nothing pressing to be done, though all can find plenty to do, especially the wife. But having worked hard all the year they feel entitled to a little recreation, and so some fine cold morning Mrs. Oldtown says to her husband:

"Come, Samuel, hitch up the team and let's go visiting to-day."

"Well, I don't care if we do," Samuel responds, wiping the last drop of syrup from his plate with the remains of a pancake, "But where'll we go?"

"Well, there is Ran Jones's folks, we owe them a visit. They was here last February and Mrs. Jones asks me every time she sees me when I'm going to pay back her visit. And there's Uncle Si's folks. It's a shame we haint been there. Mercy! we've got places enough to go. This always stayin' to home and workin' like a slave I don't think much of."

"I was thinkin' I'd like to go and see Lev Smalley. He's been gettin' some new cattle and I'd like to take a look at 'em before I buy this spring."

"Well, I don't owe Lev's wife a visit, but she's always askin' me to come. I spose we might as well go. One thing, she always has lots of good things to eat."

We will suppose that this happens on

a *very* cold morning, as it often does, for then the preparations are more numerous and interesting.

The buffalo robes have to be brought in and placed on chairs around the stove to warm. Two or three bricks are put in the oven to keep the feet warm during the ride. And even the horses' headstalls have to come from the barn to the kitchen stove to have the frost drawn out of the "bits," else the horses' mouths would stick to them like a damp finger to a frosty doorlatch.

From pegs in the spare room are brought out the best greatcoat, the broad cloth suit, the black silk dress, the blanket shawl and heavy cloak. From various snug corners come Mr. O.'s fur tippet, or long knit comforter, Mrs. O.'s "cloud" and huge pairs of thick woolen mittens lined with canton flannel.

Now comes the time of dressing, which, owing to infrequent practice, is sorely trying to their tempers. This is especially the case with Mr. O. The "dratted" collar is too much for his stiff fingers and Mrs. O. has to stop in the midst of her hair-dressing, tuck the end of the unfinished coil in her mouth and take the collar in hand.

Then the master of the house struggles into his overcoat, winds several yards of comforter about his neck and departs for the barn. Mrs. O. proceeds to envelope herself in cloak, shawl, nubia, etc., and by the time the horses prance up to the door is helpless and uncomfortable as were the fat Hansers in King Valdemar's banquet room.

The warm bricks and robes are now hustled into the sleigh, the animated bundles roll in upon them and are tucked up by the hired man. Then off go the horses and the children are left with chattering teeth watching the fast disappearing forms of their parents.

Meanwhile at another farm-house, five or six miles away, Mrs. Smalley is exclaiming, "There! We're going to have

company to-day, sure. I've dropped the dish cloth."

"Better bake up another batch of mince pies, hadn't you? Them you made last week must be most gone," suggests Mr. S., whose "staff of life" is that great indigestible—pie.

"Oh, there's seven left yet, and two custard pies. But I might make some pound cake."

"Ma! somebody's drivin' in," announces a young Smalley an hour or so afterward.

"Why, it's Sam Oldtown's folks as true as I live!" exclaims Mr. S., and he dives into his coat and cap.

"Well! well!" exclaims Mrs. S. from the doorway as the sleigh drives up. "So you've come at last. I told Lev this morning we were going to have company, for I dropped the dish cloth."

Mrs. O., assisted by the husband, now rolls out of the sleigh, pulls up her "cloud" and meets the hearty smack of her hostess with one equally hearty. The men shake hands with a "Well, how goes it?" and then the visiting begins.

In the house the women relate to each other all their personal experiences since last they met—what aches and pains they have suffered, how many times the children have had colds, how many cans of preserves they "done up" last fall, how many pickles they "laid down," where they bought their last new calico dresses, how much they paid a yard, and whether they fade or don't fade. At the barn the men are discussing stock, not the kind that drives Wall street into panics, but the fat, sleek cattle and frolicsome colts that grace the barnyard.

By the time they reach the house a fire has been started in the parlor, a dish of apples has been brought from the cellar, as a prelude to the business of the day, and the women, having finished with their own personal matters are ready to take up those of their neighbors.

Before much progress has been made in this direction, however, Mrs. S. must leave to see about dinner, for notwithstanding the fact that there are three or four kinds of cake in the cellar, besides cookies and doughnuts, two kinds of pie and no end of cold meats, preserves and pickles, she must spend three hours or more in boiling, baking and stewing before there is anything "fit to eat." In vain Mrs. O. begs her not to make a fuss. Her reputation as a cook is at stake, and can not be sacrificed even to the solicitations of a friend.

And now the duty of entertaining the company devolves upon Mr. S., but it can not be truthfully said that he is equal to its performance. He can talk with Mr. O. about the crops and the markets, but can not handle household economy and other subjects of interest to Mrs. O. So she knits or sews and listens when she feels disposed.

At last the event of the day is at hand. Dinner is announced. In sober expectancy the company march out to the table.

Ah, ye gods! here are sights to tempt an anchorite, or a hygienic philosopher! To enumerate all the dishes on that table would take a column, and then something savory would be left out. But for the comfort of hungry boarders, and for the solace of doctors who begin to fear that people are learning to live without pills, we will name a few.

There are mashed potatoes, garnished with lumps of butter and clouds of black pepper. There is squash, stewed corn, and cabbage. There are baked ribs stuffed with sausage, sliced smoked beef and "head-cheese." There are warm biscuit and honey and jelly; pickled "mangoes," cucumbers and peaches. The very table would groan if it could, and the visitors would groan if they dared before the dinner is done. If one were allowed to take his choice, if he were asked, "Rib, sausage, beef or head-cheese?" in true waiter style it

would not be so bad. But no, he must take and eat a generous portion of every dish, else he shows want of confidence in the skill of the cook. His plate is not only heaped with meats, potatoes and squash till there is not a vacant corner, but it is surrounded with little dishes of stewed corn, cabbage, jelly, etc., until, when his coffee cup arrives, there is no room to lay down so much as his knife. On top of the dinner, with perhaps the plates removed, comes the dessert, two kinds of pie and pudding.

It is a wonder that one of them is able to leave the table, but at last they manage to stagger away and endeavor to sit down comfortably in the parlor.

It is well that no after-dinner speeches are expected. The brain of a Webster could not work after that meal. But the discussion of Sally Bang's new beau, or the shortcomings of the school-teacher is not a very severe mental strain. Scarcely have their buttons ceased to be in jeopardy, when in come heaping plates of cracked walnuts, and, perhaps, if the temperance people have not been busy in that vicinity, a pitcher of cider. This helps in dissecting the minister and the deacons.

As the empty shells are taken out there begins to be heard the clatter of dishes upon the diningroom table again. The visitors start up in alarm,

and say they must be going. But they are forbidden to think of going without their tea.

"But I ain't the least bit hungry!" says Mrs. O.

"We've been eating ever since we been here," says Mr. O.

"Oh, well, you can drink a cup of tea. It'll be ready in a few minutes, and it's early yet."

There is nothing to do but to stay, to go out to the diningroom again and face that table loaded now with five or six kinds of cake, two or three kinds of preserves, with more pickles and cheese and honey and biscuit.

This meal comes to an end sooner than the other in spite of Mrs. S.'s entreaties to "take hold and eat," and then the visitors declare they must be going. The wraps are brought out, the bundling-up process is repeated, while the women keep reiterating a score of times at least, "Now come again." "Yes, I will, but now you come and see me."

Then the bells come merrily jingling up to the door, and the two huge, almost inanimate bodies, far more swollen and unbendable than when they came, are whisked off homeward to digest their enormous meals, and reflect over the valuable information they have received.

C. L. BENEDICT.

PULMONARY CONSUMPTION.

CONSUMPTION, as it is commonly called, or the *phthisis* of the medical writers, has always been one of the most formidable of the diseases of civilization. It is of so common occurrence that society appears to regard it as one of the inevitable evils that beset human life, and accepts the great mortality that is attached to it as a matter of course. Yet I am convinced that people at large do not realize the broad sweep of this malady, and its astounding destructiveness is far from considered. If

any one of the so-called epidemic diseases, diphtheria, measles, etc., caused half the number of deaths annually among us that must be put to the credit of consumption, there would be excited a profound sensation and vigorous measures be set on foot for its suppression. Small-pox is a disease that the community has a wholesome dread of, but the victims of consumption fairly outnumber those of small-pox at least twenty to one. In crowded cities like Boston, New York, Philadelphia, the proportion

of deaths by consumption to that of the entire mortality during a year, from all classes of diseases, is said to average one to five, and in certain districts where climatic conditions or the absence of sanitary precautions favor the development of the disease, the mortality is progressive from year to year.

Phthisis, from a Greek word meaning to destroy or consume, and *pulmonalis* from *pulmo*, a lung, taken together form the scientific name of pulmonary consumption, and very accurately express the nature of the malady. The study of the expectorations and of the lung tissue when affected has shown that the cause of the disease is a microscopic germ or *bacillus*, the growth of which is at the cost of the destruction of the lung substance. The effect is the *phthisis tuberculosis*, that in its early stages appears like a scattered deposit of small granules, or tubercles, white or yellowish in color, and of rather dense consistency. The upper lobe of the left lung is the part usually attacked first, and from that they extend downward. As time passes, unless there have been such active measures taken that the progress of the tuberculous development has been arrested, the deposits increase in number and size, until uniting here and there thick masses of altered and destroyed lung tissue are formed, which discharge purulent matter, of the yellow, gummy character so well known. Openings and cavities are then formed, whose borders are lung substance that still holds together although softened and destined to complete destruction by the dread parasite.

The excavations thus produced vary much in size, from that of a pea to a lemon; they may be situated deeply in the substance of the lung or at the surface, and as their walls are constantly secreting matter, a considerable quantity of the purulent fluid may accumulate in them. "Sometimes the surrounding substance of the lungs remains sound,

but in general it becomes more or less impervious to air, and before the patient dies it is supposed that on an average three-fourths of the whole texture of the lungs are rendered incapable of carrying on the function of respiration."

The old writers designate several varieties of consumption, which are respectively related to certain causes or dominant symptoms; but all cases may be included under three general types or classes, viz., *catarrhal*, *fibrous* and *tubercular*. Of these the last, which has been described briefly above, is regarded by most of the medical authorities in Europe and America as incurable. The tuberculous constitution is deemed akin to that of the scrofulous, and being usually an inheritance from diseased parents may exist in the system for many years unnoticed, but at length appear and defy the best medical skill. Habits of eating, breathing, exercise, occupation and society have much to do with the development of the tuberculous state, and therefore it is my belief that if it be suspected, and precautions taken in early life against its development in any of the organs, there is a good chance for preventing the destructive parasite from becoming active, if not destroying it altogether. Dr. Shew, before the days of antiseptics, but from the point of view of an extensive hygienic experience—which has much to do with what we know now of the scientific treatment of morbid germs—wrote the following: "The world generally has poor notions of what is possible to do by a combination of good, general circumstances in the curing of these worst forms of disease. If we take a number of dirty children—those of the lowest and most unhealthy and miserable class in any of our great cities, and remove them to a good air, keep them clean, give them good food, and in short, bring them up in accordance with the principles of physiological science, we find that most of them will get along remarkably well,

better than children ordinarily do whose parents are in good circumstances. Such things have been done over and over again."

Causes: The immediate origin of consumption may be defined as a debilitated state of the constitution, which is marked by fever, excessive perspiration, wasting of flesh, bilious or digestive disturbances, frequent purging, etc.

But the remote, yet true causes, may be traced to inheritance, intermarriage, a damp and variable climate, impure air and unclean surroundings, improper food and drink, the ignorant use of medical compounds, overwork, especially of a kind that precludes sufficient

exercise of the muscles, and taxes the spinal nerves, and sexual abuses. From this enumeration it is plain enough that the disease is peculiar to no class of society, that while among the poor of the city we may expect to find the larger proportion of cases, just as we find among them the larger proportion of most diseases that have a relation to the circumstances that rule in their households and occupations, a survey of that part of our population that is regarded as living in comfort, or well to do, reveals a startling prevalence of it. While certain causes exist among the poor, other causes of equal potency exist among the rich.

H. S. D.

(To be Continued.)

PATENT MEDICINES.

IT is unquestionable that patent, proprietary, commercial compounds, called medicines, and sold under names that show great fertility of invention, are increasing yearly. We are told that over ten thousand different preparations in every conceivable form of liquid, powder and pill are on sale over the counters of druggists, grocers, confectioners, and even of dry-goods stores. What are the reputable physicians doing about it? Substantially nothing. Here is a paragraph taken from the *Chicago Mail* of August 3d, last, and printed with all its wealth of capitals, vacuity and flourish of personal egotism. The writer is most probably one of those mixture sellers and wields a Donnybrook cudgel in behalf of his fraternity. He says the people "demand protection" and they get it *from patent medicines*—and in reply to the query, "What are they?" goes on thus:

"As a general thing they are prescriptions having been used with great success by old and well-read Physicians. Thousands of invalids have been unexpectedly cured by their use, and they are the wonder and dread of Physicians and Medical Colleges in the U. S., so much so, that

Physicians graduating at Medical Colleges are required to discountenance Proprietary Medicines, as through them the country doctor loses his most profitable practice. As a manufacturer of Proprietary Medicines, Dr. ———, of ———, advocates most cordially,—in order to prevent the risk that the sick and afflicted are liable to, almost daily by the use of Patent Medicines put out by inexperienced persons for aggrandizement only, and the employing of inexperienced and incompetent doctors by which almost every village and town is cursed; and men claiming to be doctors who had better be undertakers, experimenting with their patients and robbing them of their money and health,—for the good of the afflicted that our government protect its people by making laws to regulate the practice of medicine by better experienced and more thoroughly educated Physicians, and thereby keep up the honor and credit of the profession, also form laws for the recording of recipes of Proprietary Medicines, under examination and decision of experienced Chemists and Physicians appointed for that purpose by the government, before they are licensed for general use. He would most freely place the recipe of ——— Syrup under such laws, had he the proper protection, and thereby save the prejudice of the people, and avoid the competition and imitation of worthless medicines."

In spite of the fact that nearly all these promiscuously sold remedies are doing a great harm to the ignorant or indiscreet people who purchase them the rank and file of physicians look on without venturing a step in behalf of their own interests and of the health of the community. There are laws relating to these things that should be enforced, and our public officials, those specially elected to care for the public health, should do their duty in the matter of suppressing the evil.

Can it be that the writer of the above is right in his indictment of the average physician and in the character he has imputed to him is to be found the reason for his passive attitude while this gigantic medicine "racket" is being played by covetous schemers?

Decidedly *a propos* to what has been said above by H. is the following extract from a letter that we find in the late August number of the *Albany Medical Annals*:

"When I settled here (Rexford Flats, N. Y.) forty years ago, I put in my office a stock of drugs, expecting to derive some income from them, but I soon found that the store and grocery had the best of me, and I quit. At the present day the stores and groceries are supplied with a full line of proprietary medicines and also a stock of staple drugs and medicines. They have cathartic pills, cough mixtures, diarrhoea mixtures, ointments, plasters, etc., and they not only sell them when called for, but they examine the patient and prescribe for him. Twenty years ago I had quite a business on the canal, now scarcely any. The first man the boatman meets is the grocer, and if he finds out that any of his family are sick, he at once prescribes for them. From a careful observation over a long period, I think it is safe to say that in the country the stores and groceries do about one-third of the business that legitimately belongs to the physician."

PHYSIOLOGY AND TEMPERANCE.

IN Vermont as well as in other states laws have been passed requiring instruction to be given in the public schools with respect to the physiological effects of stimulants and narcotics. The text books adopted by the authorities have called out a good deal of severe criticism and a letter published in the *Rural Vermont* recently clearly shows that results justified it. The writer says: In Vermont, a new subject has been added to language and geography, from which illustrative examples may be taken. It is a common practice, in all the larger schools, at least, to give written examinations once a term, or even more frequently, on all important subjects. As state law now calls for temperance instruction on an equal footing with any other study, it naturally follows that written tests have also been had and will be had on this. It is from a batch of

papers on this topic that I wish to draw some specimens, not so much for the edification as for the amusement of your readers. Who will interpret this *bona fide* quotation? "The is all the time sinang miches on the nevers and is the of you body thinks." This reply was made to the question: What is the brain? The teacher will readily see that the boy meant this: "It is all the time sending messages over the nerves, and is the part of your body that thinks." This idea of the brain being a telegraph office is gained from the books, and is set forth in the following, taken from another paper: "The brain is like the telegraph office, and the nerves are the *wars* which goes from the brain all around your body." He meant wires. Here is still another on the same subject, by a boy who is doubtless familiar with the shingle: "The brain is a bony cage

(case). It has the most work to do of anything. The nerves are small white cords which run all over you if you had no nerves you could not have the toothache or burn you but you could not feel your mother's warm hand."

Something has been printed in the *Argus and Patriot*, finding fault with the definition of the ball and socket joint, as given in the Pathfinders. One of our boys says: "There is the boll sockets joints and the hinge joint one moves up and down and the other around and around." The spelling "boll," in these days of base-ball, is inexcusable, even in the case of the very little fellow, who wrote it. He deserves greater credit, however, than his school-mate who wrote about "The Bawl and saucket and hinge joints." Possibly their teachers know what these little scholars are after in the wanderings of their pure, young thoughts. Of course the question was asked concerning the effect of using tobacco upon the growth of the body. The teacher, a lady, by the way, read the answer: "You hadent ought to chue tobacco becaus it cripples you in every way and stonts the groth." It was possibly the same urchin whom the writer subsequently found smoking. The boy did not include "smoking," however, in his advice. The writer of the following took the subject of tobacco more deeply into consideration. He says of tobacco: "It hearts the bones and the boy who chews it is not so, that is not so plite as if he had not chewed attoll and does not remember his lessons so well." You, who read this, will probably say, that the time had better be put into spelling instead of temperance. This is a free country, and you are welcome to your opinion. A very small young lady earnestly protests that "topacto will make the bones weak and it will *stump* the groth;" and another evidently little pupil struggled ineffectually with a long word, and finally submitted that "Tobacko is an emerinne (enemy) to the bones."

Here is a reply from an older pupil to

a question on distillation. This description of the experiment corresponds very nearly to that on page 27 of Pathfinder No. 2: "Alcohol is made by distillation. The following is an experiment: Fill a teapot with a fermented liquid and place in its spout a piece of rubber tubing about two feet long, and put the other end of the rubber in the neck of a bottle which stands on ice or in water. Place a lamp under the teapot and light it. [The lamp, of course.] Before the liquid comes to a boil, nearly all the alcohol in it will have passed as vapor into the tubing and dropped as water [in aqueous form is meant] into the bottle, because of the coldness of the ice or water. On a much larger scale, regular distilleries are carried on." This is a good specimen of average work.

Several pupils write: "It is a licked poisson"; "alcoall is liquid poisins"; "alachol is a liquid poisoun"; "alcoholll makes the *musels* grow fat"; alocholl is a liquid posisin".

Numerous such mistakes of spelling might be quoted to show how uncertain a child's hold on bits of disconnected knowledge is, and to argue the importance of drill and time for practice. This subject can only be simply dealt with, and its ultimate influence upon the education of the child can not now be estimated. It is no uncommon thing to find pupils "dropping" words here and there; these ellipses sometimes produce ludicrous replies: "You can remove the animal from the bone by putting it into the fire." He meant animal matter.

It may be said that this whole subject is made so simple and plain in "The Man Wonderful in the House Beautiful," a work that is now used in many of the best schools, that such mistakes and statements would be impossible. A child is at once interested in the topics that are treated by the author of the book, because the style is adapted to his ways of thinking and experience—and is not a technical pescription in the ordinary scientific manner of treatises on physiology.

Child-Culture.

CONSCIENTIOUSNESS.

“THE great need of the age,” said a lady the other day, “is *conscience*.” And conscience is that fine spiritual faculty, endowed by the “Light that lighteth every man that cometh into the world,” which accurately discriminates between right and wrong, and renders us uneasy when we do wrong. Without it we morally sink to the level of the soulless brute; if its more delicate powers are blunted by ill-usage it becomes insensible to what we choose to call the smaller sins; and when warped, or in a measure paralyzed by being allowed but partial action, it in time ceases to indicate to us any errors but those we have accustomed ourselves to acknowledge, while to all others we remain pleasantly but fatally blind. And such injuries, contracted often in early childhood, are, as experience sadly teaches us, rarely remedied in after life even by what is known as “a saving change.” “Seared with a hot iron” is St. Paul’s graphic description of such irreparable damage; and what can restore life, sap, and sensation to anything that has once been *seared*?

It must be acknowledged that some children are born with a much more highly developed organ of conscientiousness than others; in these it needs only to be cherished, while in those it requires painstaking cultivation. As an example of the former, and we trust more numerous class, I may quote an anecdote of a little girl of four or five years old, who, when out walking with a grown person one day, greatly coveted a spray of flowering lilac from a tree in

a garden they passed by. The blossom laden boughs drooped temptingly over the pavement, and her adult companion thought it no wrong to raise her hand and pluck a tiny cluster to satisfy the child’s wish. But, oh, the burden that little flower was to the possessor! The houses, gates and walls, the very air seemed full of eyes that saw the deed and knew it was a theft. She stuffed the spray into the pocket of her little jacket, but the fabric instantly, to her imagination, became transparent; every body would see the flower there and be aware that it was stolen; nor was her mind easy until that once longed-for treasure was thrown away. Even then the incident was not at an end. At the place of worship the child’s parents attended, the reading of the Commandments was alternated with the Litany on successive Sunday mornings, and thenceforth, for months afterward, the hearing of the former was dreaded because of the consciousness of guilt awakened by the words “Thou shalt not steal;” which, so delicate and true in this instance was the working of conscience, the fact that the actual perpetration of the deed was by another’s hand no way weakened or annulled.

The above is doubtless by no means a unique case, yet how early in some characters do we see this fine susceptibility impaired or wholly destroyed! The petty theft, the “scamped” task, the mean advantages taken of another’s disability, the abuse of confidence, the wanton injury of other people’s property, the cheating at play, the “eye-

service" of parent or teacher, and last, but not least, the ready lie to conceal it all, without one after pang, or blush, or thought of the defilement and disgrace. How soon shall we begin so to act that our children shall believe that to do a wrong thing is horrible, and to hide it is an aggravation of the original sin?

It is surely in vain to expect them to realize this truth so long as such conduct as I have just mentioned is regarded by parents with the easy carelessness which so many of them display, so long as the glibly uttered falsehood and the shammed illness to obtain a holiday are looked upon as weaknesses incidental to childhood; while the father assists his son in the production of an essay which is supposed to be the latter's unaided composition, and it is an unacknowledged fact that the daughter's drawings, proudly exhibited to admiring friends as her own work, have been carefully touched up, and all their best effects produced by the master's hand; while a laugh of unalloyed amusement may be raised in the family circle by the recital of some clever deception, or description of a practical joke that caused annoyance or suffering to man or beast; while the overreaching bargain with an inexperienced companion is commended as "sharp," and the innocent simplicity that allowed itself thus to be defrauded is spoken of with half-contemptuous pity as an evidence of mental deficiency. While such things as these are common in the children's world it is vain to hope for them to develop that all-through-alike sincerity of heart, that fine sense of honor and justice, which are indispensable for the formation of a noble character.

The popular practice, moreover, of teaching young people to *seem* instead of to *be*, and of cultivating that miserable falsity, "company manners," must have a very deadening effect upon the conscience. Most little children are by nature transparently candid; what they

are, they appear; what they feel, they look; what they think, they say. In too many cases, however, is this frankness of mind as early as possible checked, and that dreadful double-facedness, to which the majority of us, alas! must in greater or less degree plead guilty, takes its place. "Don't do that! There's Mr. A. looking at you;" "You had better not let auntie hear you say naughty words, or she won't have you at her house;" "You must mind how you behave when Mrs. B. is here, or you won't get invited to her little girl's party." Why not teach them at once that rudeness and disobedience and ill-temper are *wrong*, and as such quite as shameful when alone with mother and juvenile play-fellows as when the eyes of a dozen Mr. A.'s or Mrs. B.'s are fixed critically upon them? That to help themselves to the largest apple or last slice of cake is *selfish*, not that it "*looks* so bad;" and that to strike or tease a little sister is unkind in itself, setting aside what the visitor may happen to "think of" them. A thing that is right, in its right time and in its right place should never need to be hidden or checked, whoever may be looking on. A thing that is wrong, *is* wrong, and not a whit more so with the clergyman as spectator than the milk-boy. Too numerous to mention are the ways in which conscience is blunted and hypocrisy inculcated by people who have the charge of children. "If the man at the ticket-office asks how old you are, say, 'Eleven;' so you are, you know, *and the rest!*" "If your aunt wants to know how much your new suit cost, say I never told you; for I didn't, I only showed you the bill."

Conscientiousness (to depart, somewhat in conclusion, from the subject of early childhood) is not, one can not but think, sufficiently urged upon those young persons in our Sabbath schools, who have been induced to make an open profession of Christianity, a point on which most teachers are far too lax, and with disastrous consequences. No ver-

bal assurances or emotional displays should be considered satisfactory unless a firm determination is seen to make an enlightened conscience the rule of life in all things.

It is common, as we know, for the rosy-lipped cherub, who, with clinging arms, has just declared to us his love; to pout and twist when asked to prove that love by the performance of some trifling service; but the same disposition is not unfrequently exhibited in a modified form by lasses and lads, who are ready to confess their love to Christ. Each alike, needs to be wisely and gently shown that love, even of the most ardent

and demonstrative description, is of small value unless it leads to the faithful performance of duty.

Love is indeed the greatest motive power in the world, but until acting in connection with a sensitive conscience it inspires the will, it is of no more practical use than the steam force issuing in volumes from an uncoupled engine. To the young and undisciplined, this lesson is hard to learn, but to its neglect, may, I think, be traced much of that deplorable inconsistency among adults, with which the records of every Christian church are more or less stained.

WAVERLIE PENN.

AMUSING CHILDREN.

WHETHER a child can be easily amused, depends somewhat upon the amount of imagination which it possesses. Without this, very many sources of enjoyment are cut off from it. Where it is strong, we have seen a child perfectly happy riding on a camel with a cane for a spear; the camel being made from a small rocker, inverted in a high chair and a hat or something of the kind used for a head, while a rope answered all the purposes of harness, saddle and trappings. The novelty of so high a position with the unusual arrangement of the furniture were the actualities around which the imagination of the little one built up the whole Eastern superstructure.

The same child used a wooden chopping bowl or tray for a boat and with two canes for oars would row on the floor for an hour at a time, perfectly contented with the imitation. Another child had for years a pet bear that he kept chained in one corner of the parlor, and which he was fond of bringing out and showing to visitors. He also played with it when alone. This was pure imagination, for there was neither bear nor chain. He always acted as though it was real, stroking the imaginary back

and hugging as though he had an animal about two feet high.

The realistic child, however, needs something actual, and the making of dolls often furnishes the desired employment for the little ones. Two rolls of cloth tied together cross wise will form body and arms, while the legs may be ignored in most cases. A piece of cloth with a "puckering" string in one edge and two holes for the arms, answers for a dress. Boys and girls can often be set at such work as this, and get no small amount of pleasure from the numbers of "children" which they have.

Boats that can be sailed on the floor are an endless source of amusement to children who live near the water or who have any interest in shipping or steamers. If boats are planned in a simple way, the child can make them himself, and have the pleasure of numbers added to his interest in his own workmanship. This element of number is an important one, and at times adds greatly to the zest of the play or the toys.

As far as possible, the child should be encouraged to make his own toys. Planning with the head to make with the hands brings out some of the most important powers of the child and at the

same time satisfies the natural instincts. Cutting out pictures and pasting them on screens is an endless indoor amusement which is full of instruction to both eye and hand. Making paper boxes is amusing but not always satisfactory, because the boxes are not always square and the covers do not fit. More to the point is the decoration of the endless variety of boxes which come into the household. These and the tin cans may be decorated with colored paper or with scrap pictures. The can must have a foundation of paper put all the way around and pasted, paper on paper.

Out of doors the making of houses and barns, putting yards around them, making of fences, the setting out of trees and the carrying out of home life in miniature can often be made the source of endless pleasure. But in some cases the planning must be done for the children, in others an interest must be taken in their work if only so much as is shown by going and looking on at intervals, or giving a word of neighborly advice in regard to the "crops" or some sick animal, etc., etc.

Plays of this kind may be graduated to the strength and age of the child. For the little ones a house of three inches high with palings no larger than matches will be quite as much as they can manage. The older ones, when they are really interested, may go so far as actually to build, perhaps, a playhouse. In

any event they can have their playhouses large enough to entail some labor.

But there are children who were not born to make. Their parents do not invent, do not whittle, have no mechanical talents. They are, perhaps, merchants, business people, professional men. In that case there is an opportunity to make the brain play with the body by simulating the play to the profession and making it out-door work. The child may imitate the active part of the parent's work and thus get play for body as well as mind, even in the case of playing at doctor.

In whatever way the child is amused it is well to remember that play is strictly educational. The puppy, in running around after his tail, or the kitten jumping at the shadow of a leaf, is performing purely educational work. Recognizing this fact, teachers and parents make a mistake which is fatal to the very object which they seek. They attempt to make the educational part amusing and amusement instructive. The two are so rarely united that it may be accepted as an axiom that they can not be joined.

When a child plays let the play be the one and only object which they seek. Let the teacher select beforehand the play which gives the greatest advantages, but then let the fun and pleasure be the chief and only object, remembering always that only sound bodies can contain sound minds.

W. E. PARTRIDGE.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—NO. 8.

REWARDS AND PUNISHMENTS.

DOUBTLESS the best and highest motive which can impel either child or adult to obedience is a sense of duty and love to the person whose wishes are to be respected. But experience teaches us that, owing to the frailty of human nature, these noblest feelings are often not sufficiently developed, and lack the necessary power to effect the

desired end; in which case we have the Divine authority for adopting a system of rewards and punishments for the enforcement of beneficent laws.

It has seemed to me that the chief evil to be guarded against in giving rewards is their tendency to degenerate into bribery. A child is told to do a thing which in itself is simple enough,

such as, Go to bed, or come and be washed, and he objects. "Do, and I'll give you so-and-so," says the weak-minded mother or nurse, and if the juvenile complies, prides herself, possibly, upon her tact; whereas she has not only in all probability involved herself in the providing of a similar bribe upon all future occasions, but worse still, has committed the grave error of offering to the child a *premium for disobedience*; for had the child promptly and unobtrusively done as he was told, he would have had no reward. I once knew two little boys who were suffering from the same illness.

The one took all necessary medicine and nourishment without objection, and received no prize; his brother made a point of refusing unless offered some substantial inducement to obedience, and consequently grew rich upon the bribes he thus obtained. Was not this unjust and demoralizing?

Some people get their children in the habit of never going to bed without a sweetmeat or biscuit as an incentive to willingness; and if at any time the accustomed goodie is not forthcoming, the wailing that follows is both loud and long. One mother I knew had also brought up her little son to always expect pennies for the smallest service he performed on her behalf, and as a result I have often heard the most unseemly bargaining when he has been asked to do anything, as to how much she would *pay* him for it! Thus one can not help seeing the fallacy of giving rewards as a regular thing, to be expected, and taken as a right, rather than as an occasional encouragement and a proof that an effort to be good is not unnoticed. Of course any special arrangement for enabling a child by industry to earn a little pocket money comes under a different head; as does also a particular prize for some unusual effort—the mastery of an extraordinary task, or the conquering of an objectionable habit.

But now to speak of punishments. Our poet Laureate says:

"He that only rules by terror
Doeth grievous wrong."

And the parent whose sole notion of discipline is to hold the rod, figuratively speaking, perpetually over his children's heads, is certainly unfit for his responsibilities. I do not now intend to dwell upon the question of whether corporal punishment, as a rule, is or is not, advisable; but it is undeniable that the form of punishment must vary with the different dispositions of the children on whom it is to be inflicted, and the character of the offence which called it forth. Therefore I am inclined to think that for boys of coarse, heavy, material nature, and for the commission of such wrong-doing as wanton cruelty to animals or smaller children, physical suffering is the most suitable penalty. Others may be deterred from evil by the prospect of being deprived of some much-prized pleasure, or expected dainty; while for those of fine and sensitive mind, and who have been well brought up, the withdrawal for a time of the parent's approval will be all-sufficient. But no mother should upon any account hold forth a threat which she is not firmly resolved, if necessary, to carry out to the uttermost.

Concerning this subject, however, the thought that presses one most strongly is that the correction should be administered from a *right motive*, and be absolutely *just*. The only ground on which punishment should be imposed upon any child is the hope that the penalty may prove a deterrent. To punish from a feeling of personal annoyance is simple *revenge*, and fatal to justice; besides which it shows a very bad example. Charlie inadvertently knocks the table at which we are writing, and spills the ink; in sudden anger we box his ears. Presently Charlie's little brother as unintentionally upsets the blocks with which he is building, and is sent away crying with a hearty slap. We condemn

Charlie's behavior as unkind ; but from whom did he copy it ? Again, when administering correction in the heat of irritation, how are we to guard against being influenced by *mood*?—a precaution which is essential. An inoffensive action can not become punishable because the mother has had a bad night with baby, and feels cross, any more than a wrong deed can be made excusable because she happens to be in an unusual good temper. Yet how many children are made to suffer, and often wrongfully, in consequence of temporary peevishness in the parent, or merely from a spirit of retaliation !

Furthermore, in order to judge fairly of the merits of a case, one must take time to weigh thoroughly the probable motives of the child's conduct, to consider whether it arose from ignorance or wilfulness, from mere thoughtlessness or from a wish to annoy ; for the feeling underlying the action, and *not* the

amount of damage or trouble resulting—should be the gauge of the penalty. Throwing stones, if forbidden, is equally wrong, whether or not a broken window is the consequence ; and the latter disaster, though causing vexation and expense, does not actually aggravate the fault. A *pure accident* should never be visited with severer reproof than an admonition to greater carefulness in future. A penalty for any offence should, moreover, never be inflicted if there is a chance that verbal remonstrance may be sufficient ; and in no case without first hearing impartially the culprit's own statement as to the reason for his conduct ; it may easily be seen whether he is offering empty excuses, or any real palliation of his fault.

But in order that this plan may work well, and unerring justice be done, the child must from his earliest years be trained to absolute candor and truthfulness.

JENNIE CHAPPELL.

PLEASANT SURPRISES.

THERE is one element of success in child culture that may not have entered into the young mother's creed. I allude to the pleasant surprise. It may emphatically be said in its favor that it possesses the essence of a tonic for simple physical ailments, and will maintain its reputation for temperamental troubles.

Children seldom forget the brightest and saddest moments. The former may often serve as a beautifier to the latter, turning the tear-dimmed face to one of sparkling pleasure.

For petulance a pleasant surprise may be termed a specific, when it is not, as is often the case in nursery parlance, a prelude to serious illness. Even then it acts like a charm and prevents the toddler from wasting the forces that it will need to contend with disease.

"When Johnny," said a sweet-eyed mother, "is cross I fetch out the bath-tub, and after the little fellow has rollicked

in a different element he is chirk as a lark." In the first place his attention is arrested in the proceeding, and by the time he finds himself the principal actor his petulance has fled.

Grandma's pocket is a storehouse of surprises. Many a child will toss away a fine French toy to play with grandma's spectacle case. I have heard a mother say, "I will put you to bed if you do not stop being so cross." Then in the quiet of his little crib Johnny reasons thus : "Mamma is cross too. Why don't some one put mamma to bed ?" When a child is cross, that is the moment when mother should be calm—her example is so powerful in the realm of babydom.

"Yes," but I hear you say, "*I* have reason to be cross." When the storm rises a steady hand is needed to guide the ship. Why not line the cloud with the glow of calm decision ? Who knows but what the child had a right to be cross ? Even the

loss of a marble is invested with the keenest sentiment. A beautiful writer once said : " Oh, say not that childish tears are nothing ; at that time they were more than the young heart well could bear."

When little Mamie is pettish, surprise her with a calmness looking out from your own eyes, and she will unconsciously reason your placidity into hers, tear-dimmed and drooping, thus : " Mamma isn't cross, there is no one cross but Mamie." Now this is in the nature of a surprise. Mamma is her world. When she smiles, every thing is lovely, and her frown is reflected in a troop of little faces.

We all need these pleasant surprises, and the waxen nature of childhood particularly receives the beautiful impress sometimes ineffably.

During my childhood, our home was twice bereft, and the children had two stepmothers. I was the youngest. It was winter. I had a bad cough, and during one of the paroxysms incident to it, my step-mother said coldly as the snow on the hills without : " Go out doors and raise the phlegm." (These were not the exact words, but as the original were still more frosty I decline to give them.) The chilly manner in which the rebuke was administered was never effaced from my mind. She died. Her place was filled by another who greeted my return after a period of absence by a warm embrace and a loving kiss. Oh, what a benediction lay in that kiss of welcome, it stirred all the good in my child-nature till it rallied in her favor. Had I at the moment possessed the wealth of the Indies I would have laid it at the feet of the stranger. It made me a better girl. Her sweet memory has lived ever since in my heart. Now here was a pleasant surprise. The magic lay more in this than in the kiss. I did not expect such a greeting.

O Father, forgive me that I often to this late day feel like praying that that hushed note might be repeated in that same sweet strain. Kindness is a potent factor for good training. It does not arouse

antagonism in the little one, like the harsh word and severe manner.

A beautiful girl of sixteen once said to me in speaking of her deceased father : " I do not remember any feeling but the one of fear in connection with him." This is wrong. Parental love is not necessarily allied to weakness. We should be very careful that our mode of discipline does not destroy, or even mar the love plant in a child. Sweet little one ! it does not love you because you are its mother ; it loves you before it is old enough to know the relation of mother and child.

A young father once asked me, " How old must my babe be before I can begin to correct it?" equivalent to saying, " When can I commence to beat it?" Now, the thought of government never enters the tender-hearted mother's mind, her soul is so full of love for baby that she forgets that a time will ever come when she *can* play the tyrant to her darling offspring.

There are so many resources to which a thoughtful mother can resort in the claiming of obedience. Such little things make a wee toddler happy. Only this morning in my summer retreat there was an illustration of this fact.

A three-year-old was pressing his chubby fingers into a bon-bon box, and from way down in its depths he brought up a gum-drop. You should have seen his face light up with happiness. He did not speak, his joy was too great for words, so he held up his pink treasure for me to see, expecting I too would rejoice with him. Oh, we had a happy time together. Now, it was not the candy so much as the fact that he thought they were all gone, and lo ! and behold there was still another. This surprise gave him unexpected pleasure. I had given him the box filled two days before, and with the little show that sweetmeats usually have with children, it was natural to conclude they had all long since vanished. The little things that make up this life are often surcharged with simple beauty, just adapted to our need. MRS. A. E. THOMAS.

THE BEGINNINGS OF BEAUTY.—No. 5.

"I CAN not imagine," said a mother to me, "why Alice should have such a plain mouth, all my people have been noted for having pretty mouths, and her father's people are similarly favored, but Alice has such large, loosely hanging lips, that it does not seem as though she belonged to the family, it annoys her now that she is old enough to notice the difference between her mouth and mine."

"Have you truly no idea of the cause?" I asked.

"Not the faintest," was the honest reply.

"Let me tell you then what is doubtless the cause. As I came up the garden walk, Alice and Jessie had been disputing, and as Alice turned to leave the scene of her discomfiture, she made up a horrible grimace, and not satisfied with that, placed her hands so that she pulled down her under eyelids, and stretched the corners of her mouth, Jessie imitated her, then hearing my steps they hastened away."

"Oh, nonsense, that bit of childish ugliness would not so disfigure Alice's mouth, although, I know she does make the worst grimaces and facial contortions that I ever saw, and has done so since she was two years old."

"And you never checked her?"

"Well, I did not forbid it and yet she knows that I do not approve of it, and her papa scolds about it. He thinks as you do, that it will disfigure her face."

"And he thinks quite right, my dear friend. Nature is in all things exacting to the uttermost farthing, and whoever attempts to defraud her is beaten at the game. She never intended any face or form to be other than beautiful, it is by and through the abuses heaped upon our bodies and our children's bodies that we are compelled to see in the large majority of cases plainness when we should only see beauty. If you look back you will probably remember that Alice's mouth was pretty in her infancy."

"Yes, it was, her photograph shows

that plainly, and I remember remarks that were made about it."

"Then do you not see that I am right? It is the foolish habit of distorting her face which has resulted in a permanently disfigured mouth and I also think disfigured eyelids"

"Is it too late to remedy the wrong, do you think?"

"Quite too late to make her face what it would have been, but not too late to prevent further mischief in her case and wholly prevent its recurrence with Jessie."

"So many of the children about us are addicted to the same habit that it will be a difficult matter for me to prevent my children from at least occasional lapses into the practice."

"If they are impressed with the fact that the practice will certainly disfigure the face they will pay more heed than to any other point you can make, for children enjoy and desire beauty. I had with me at one time a little niece who had formed the habit of pinching her own lips, if she were thinking, or annoyed. The lips were already losing their graceful curves when she was taught not to treat them so harshly; then she transferred her pinchings to her cheeks, and was so tenacious of the habit, that on being talked to about it she said: 'I think it is a pity if I can not pinch my own cheeks; it does not hurt anybody but me, and it doesn't hurt me much.' Probably in that case the pinchings and pullings took the place of the passionate stampings and screams in which many children indulge. A child must be constantly watched, or it will form some disagreeable habit which must be regretted in all after-life."

"But a busy mother can not be at all times free to note everything that her children do," urged Alice's mamma.

A LADY PHYSICIAN.

(To be Continued.)

NOTES IN SCIENCE AND INDUSTRY.

How to Make a Cheap Horse Cart.—A cart for one horse, or mule; should not be made heavy enough to be a good load of itself, neither need it be strong enough to carry a load sufficiently heavy for two spans of horses to draw. We frequently see horse-carts having wheels large and strong enough for an ox cart. A neat little cart will often be far more convenient, for many purposes, than a wagon. But, a new cart will cost so much, ordinarily, that but few farmers will entertain the purpose of procuring such a vehicle. I have in mind a convenient one-horse cart that was extemporized by a young farmer, and which he used for many years, and which subserved all the purposes of a cart that would cost one hundred dollars or more. He took the wheels from his grain-drill and fitted them to an axletree dressed out of a small oak; and the thills, or shafts, were made of two small, round poles. A drygoods box was secured to the axletree by a light pair of gate hinges, so that a load of manure or dirt could be readily dumped. The entire vehicle weighed about one hundred and fifty pounds; and it would carry a ton of stone or dirt on any road. Whenever the grain-drill was to be used, the wheels were returned to the axle-arms of the drill. The wheels of some horse-rakes would make an excellent cart for ordinary purposes. The body of a one-horse cart need not have sills large enough and heavy enough for the sills of a railroad car. I have frequently seen the body of a horse cart made of hard and heavy timber three by four inches square. It is exceedingly unwise to require a horse to lug several hundred pounds of useless lumber wherever he may be driven. Such a practice is like carrying water in heavy iron kettles.

An axletree made of a small tree is objectionable, as sticks of timber having the heart of the tree at the interior will usually crack, more or less, during the process of seasoning; and sometimes, a stick will crack from the heart, to the surface, so as to *spoil* it for most purposes. A piece of good

timber three inches square, taken from one side of the heart of the tree, will be sufficiently large and strong for any one-horse cart. For ordinary use about the farm, wooden axle-arms, without any iron skeins, will wear many years, if they are kept well lubricated with a decent lubricator. Many people who do not appear to know the difference between old dirty grease or pine tar and an excellent lubricator, often damage the axle-arms of their vehicles by lubricating with a material that has salt and grit in it, which will corrode and cut the iron and wood away faster than the actual wear of the parts when in use.

Ordinarily, one can make his own "wagon-wheel grease" much cheaper and far better than the common wheel grease of commerce. Purchase a half pound of plumbago or black lead, in powder (not *lum* bago, the back-ache), and mingle a pound of clean tallow and a pound of lard together by beating the mass; then remove the kettle from the stove and stir in a pint of clean machine oil and the plumbago, and mingle the different parts in a thorough manner. Let it be kept in a vessel having a cover to exclude dirt and grit. Should the mass be too stiff, warm it and add more oil. If too soft or thin, put in more clean tallow. The object of the plumbago is to hold the oil in the place where it is needed, and to keep the lubricator from flowing away and dropping off the axle-arms. Good machine oil is the right kind. Never use linseed oil, or any of the drying oils for lubricating purposes.

As two-wheeled pleasure vehicles are now so fashionable, one can take the hind wheels of some carriage or sulky horse rake and have an axle and body made to fit the wheels, and thus extemporize a vehicle as nice and shiny as fancy may desire. An ingenious worker in wood could construct a neat and inexpensive rustic cart (besides the wheels) at a trifling expense, provided he has access to a few small trees and some brush which can be obtained where farmers are clearing land.

ESS. E. TEE.

A Grand Avenue to Mount Vernon.—It is proposed to construct a grand avenue from the tomb of Washington to the Federal Capital, a work of interest to every citizen of the Republic. This enterprise was suggested by *The National Republican*, which thus speaks of it: "It is proposed that the avenue shall be one hundred and fifty feet wide—twenty-five feet on each side for parking—and that each State and Territory shall have apportioned to it four hundred yards—or nearly a quarter of a mile—where it will plant as shade-trees specimens of native growth, erect a marble tablet with the name of the State, its coat of arms, and in the case of the original thirteen the names of the signers of the Declaration of Independence, together with such statuary in bronze or marble as the State shall choose to erect. It is further proposed that the original thirteen States shall have choice of the ground, commencing at the tomb of the great leader, who, both in peace and war, is ranked as 'first in the hearts of his countrymen,' and that the other States and Territories secure the next plats in the order of their creation as States and erection into Territories. For a little over two miles from the aqueduct bridge the avenue will pass through ground belonging to the United States, the Arlington grounds, which will always be used as a national cemetery, military depot and park; and it is assumed that the Government will not hesitate to make and beautify its portion of Mount Vernon avenue in the very best style and place the parking, care, and maintenance of the trees furnished by it and the States under control of the Department of Agriculture, providing and locating on its part of the avenue, as it undoubtedly would, the bronze or marble statue of every President or Vice-President of the United States—the product of the genius and skill of the very best artists. Every State will take pride in seeing that its portion of the avenue is handsomely provided, first, with its best trees, and then with the bronze or marble statues of its most notable citizens, so that the fourteen miles from the Capital to the tomb will be one grand highway lined with the monuments of the great men of the nation, embowered

in shades such as the originals rested under when in life. The route over which the avenue will pass is historic ground. From the mansion that was the home of Washington the traveler will pass over the route which he so often traversed to the church where he worshiped in Alexandria, the home of his stepson, and the city which he founded. Every foot of the route will not only be historic, but will teach the history of the States and the great men who helped to make them."

The First Lightning Rod.—If we are to believe an Austrian paper, says *La Lumiere Electrique*, the first lightning rod was not constructed by Franklin, but by a monk of Seufftenberg, in Bohemia, named Prohop Diwisch, who installed an apparatus the 15th of June, 1754, in the garden of the curate of Prenditz (Moravia). The apparatus was composed of a pole surmounted by an iron rod supporting twelve curved up branches, and terminating in as many metallic boxes, filled with iron ore and closed by a boxwood cover, traversed by 27 sharp iron points, which plunged at their base in the ore. All the system was united to the earth by a large chain. The enemies of Diwisch, jealous of his success at the court of Vienna, excited the peasants of the locality against him, and under the pretext that his lightning rod was the cause of the great drought, they made him take down the lightning rod which he had utilized for six years. What is most curious is the form of this first lightning rod, which was of multiple points like the one which M. Melseu afterward invented.

Ownership of an Invention.—The general rule is, according to a decision in the Illinois Supreme Court, that when a mechanic is laboring for an employer in the construction of a machine, and invents a valuable improvement, the invention is the property of the inventor, and not of the employer. It may be that when an employer hires a man of supposed inventive mind to invent for the employer an improvement in a given machine, under a special contract, that the employer shall own the invention when made, the invention, if so made, would in equity become the property of the employer.

How Monkeys Eat Oysters.—

A writer in *Nature* gives the following description of the monkey's method of taking and eating oysters :

In the islands of Meigüe archipelago, the rocks left bare at low tide are covered with oysters of different sizes. A monkey, probably the *Macacus cynomolgus*, which inhabits these quarters, prowls along shore when the sea is low, and opens the oysters attached to the rocks by striking the upper shell with a stone until he has broken it. Then he extracts the mollusk with his fingers or swallows it directly from the shell. Upon frightening these epicures away, the observer found that the stones that they left behind had been selected with a view to being easily grasped by the animal's fingers, and not with regard to heaviness. The fact is the more curious in that the rocks to which the oysters are attached emerge from mud, and the monkeys are obliged to procure the stones on the shore at some distance off. Instinct singularly guides them in the operation, for they begin by breaking the hinge, and then the shell above its point of attachment. The gibbons that inhabit these islands do not eat oysters.

The Falls of the Orange River.

—Mr. G. A. Farini, who has recently made a journey across the Kalahari Desert in South Africa, succeeded in seeing and photographing the falls of the Orange River, which he was told could not be done. "We had," he says, "to swim rapids, climb rocks, and descend precipices by ropes in order to take the views. The river is broken up into many streams by huge rocks and boulders, some of them rejoining to form the main waterfall, and others cutting out separate channels to the great gorge, some four hundred feet deep and sixteen miles long, worn in the solid granite. These streams form many rapids, and, when the river is half full, rise and form over a hundred separate cascades, unsurpassed for beauty and picturesque grandeur. When the river is full, many of them join to make one mighty sheet of water, rivaling the great Niagara, as it pours into the abyss nearly four hundred feet below. At low water, the only time it can be approached,

the Hercules Fall is one hundred and sixty-five feet high, with several smaller falls at the sides, which are three hundred and fifty feet high, and are caused by the same water before it reaches the main fall."

Buttons of Blood.—Making buttons of blood is one of the many ways known of utilizing waste. There is a large factory in Bridgeport, near Chicago, employing about 100 men, boys and girls, in which waste animal blood is converted into buttons. The same firm has another large factory elsewhere. A man named Hirsh was the first to introduce the business into this country, some years ago. He lost \$16,000 the first six months, but he stuck to it and is now immensely wealthy. There are a number of similar factories in England. From 8,000 to 10,000 gallons of blood are used in the Bridgeport factory every day. Nothing but fresh beef blood is used. It is said that pigs' blood is just as good, but it is too much trouble to collect and save it. Considerable of the blood evaporates during the process of drying, but what remains is pure albumen. Some of it is light in color and some dark, according to the chemical treatment given it. These thin sheets of dried blood are then broken up, and are ready to be worked into various shapes and sizes. Large quantities of the blood sheets are used by cloth manufacturers for "setting" the color in calico goods. Not only are buttons made from blood in this way, but tons of earrings, breastpins, beltclasps, combs and trinkets are made annually there from blood.

TYROTOXICON.—J.—This is a poisonous element that sometimes develops in milk—a minute fungus derived from unclean dairy surroundings or careless handling while the milk is on the way from the farm to the consumer. Freezing does not destroy it as shown by the cases of poisoning by ice cream, that came to light last summer. Milk is wholesome that comes from healthy cows if kept clean and pure and away from the air. Milk that has been much exposed to the atmosphere is not fit for the human stomach, no matter how carefully the farmer who supplied it feeds his cows and watches over their condition. The growing practice of marketing milk in self-sealing bottles is a great improvement for health's sake on the old method of supplying city households from large cans.



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QUITE POINTLESS.

A CORRESPONDENT sends us a clipping from *The Universalist*, of Chicago, in which mention is made of the death of Prof. O. S. Fowler, and it is stated in connection with such announcement, that Phrenology was "quite extensively believed in thirty years ago," but that it has "long been thrown aside as a pseudo-science;" and, further, that the "Fowlers out-lived the science they tried to build up."

Without attempting a formal criticism of such statements, we would say that they certainly indicate a want of familiarity with the nature of Phrenology and its uses. If the editor of *The Universalist* had made some examination of the subject, he would have ascertained that his views are not well-founded; he would have learned that its principles have been, for the most part, incorporated with the substantial teachings of modern anatomy and physiology; that the main facts concerning the structure of the brain and its relation to the mind, as developed and taught by the early phrenologists, are now generally ac-

cepted by scientific men; that as for its being thrown aside as "pseudo-science," its leading principles are, for the most part, more extensively believed in to-day; that more men and women than ever before are interested in disseminating its facts and principles, and that the great moral and physical truths which contribute real growth and prosperity to man in our modern civilization have owed their acceptance and dissemination more to the phrenological writers and teachers than to any other class of men since Spurzheim came to this country with his mission of benevolence.

The editor of *The Universalist* can not be well-informed with regard to the movements in physiological science to-day; otherwise he would perceive what an impulse to observation in that department the phrenologists have given. It is said that the same editor occasionally complains, through the columns of his paper, with regard to the unjust treatment *Universalism* receives from the Orthodox churches, representing that the latter condemn without giving the subject a fair hearing, and before making a proper investigation of its claims, jump to conclusions with regard to their significance. It seems to us that his treatment of Phrenology is much in the same line as that which he makes a matter of reproach, and we suggest that he take counsel from such experiences and act more becomingly in future.

* * *

The above reminds us of the statement of the celebrated reviewer, Francis Jeffery, who wrote an elaborate criticism on the doctrines of Gall and Spurzheim, about sixty years ago, which was pub-

lished in the *Edinburgh Review*, of which periodical he was the editor. Jeffery, in the opening of his essay, states, "we do not hear that Phrenology makes much way in London or Paris;" and also that "several persons who had been at first rather taken with the new doctrines, had, by more careful observation, been thoroughly convinced of their fallacy." The truth of the matter was that at that very time the "new doctrines" were making the most rapid headway, and that, too, among the most learned and scientific. Dr. Spurzheim's lectures were attended by large audiences wherever he appeared, sometimes upward of a thousand being present, a very uncommon thing in the history of science at that period. There were phrenological societies in many of the cities of the continent and Great Britain. Paris had a flourishing society of which the distinguished Broussais and Vimont were active members. London had a society with a hundred members, including members of parliament, lawyers, physicians, etc. Among them such as Dr. John Elliafson, Henry Lyford, John Barlow, James Kendrick, and Dr. Simpson. Edinburgh had also a flourishing society, with the brothers George and Andrew Combe, Sir George S. Mackenzie, William Scott, Lawrence Macdonald, the sculptor, as prominent members, and Dr. Chalmers as a correspondent.

The medical and other current publications were constantly reporting the proceedings of this or that phrenological meeting or society, and giving extended accounts of the lectures and demonstrations of leading representatives. The *Medico-Chirurgical Review*,

then the most widely circulated medical magazine in Europe, and the *Lancet*, of London, also an important organ of British medicine, published reports of Broussais' and Spurzheim's lectures. In the former, shortly before Mr. Jeffery's essay appeared, a review of the work of the phrenologists was given place, in which this passage appeared:

"We must acknowledge at the same time that we feel impelled by the pure force of multifarious and unquestionable evidence, to regard this as the most intelligible and self-consistent system of mental philosophy that has ever yet been presented to the contemplation of inquisitive men." And also this:

"We might have expatiated at great length on the utility of this science in its application to the purposes of education, legislation, political economy, criminal jurisprudence, history, legal and theological elocution, and *above all, to the true philosophy of medicine*; but we have abstained from this indulgence in the belief that the foretaste of an intellectual luxury we have provided for our readers will stimulate them to desire the enjoyment of a full repast."

These declarations from an authoritative source such as the leading organ of British medicine and surgery, were properly quoted as a complete answer to the invidious and carping statements of the essayist.

A "NEW SCHOOL" OF MEDICINE.

NOT long ago we took occasion to venture certain remarks with regard to the treatment of disease; stating that in our opinion the time was not far distant when disease would be looked upon by physicians generally as the result of a

poison existing in the body, and affecting, according to its nature, certain localities or the general organism, and that the true method of treatment would include two points—such antiseptic administrations as the special nature of the symptoms indicated, and nourishment to supply the necessary tissue compensations for waste and loss occasioned by the disease.

Very recent pronouncements on the part of eminent physiologists signify a strong leaning toward the side of the chemists, that tissue changes, or cellular activity in health or disease, develop substances of a chemical nature that may be healthful or poisonous. For instance, improper articles of food taken into the stomach may there undergo changes resulting in the production of deadly alkaloïds, or ptomaines, which, if not neutralized in some way, develop malignant disease of some form. And further, the normal functions of the different organs, from the brain to the skin, develop a variety of ptomaines that are not primarily poisonous, but may become so. Sir Henry Roscoe, at the late meeting of the British Association, said, "Life is governed by chemical and physical forces. . . . Whether these tend to continue or end existence, depends upon their nature and amount."

An issue involving important consequences appears to have been made here between the advocates of the germ theory of disease and the chemists, as the latter claim that microbes or bacteria are *not* more responsible for the production of disease than the yeast cell is for the production of alcoholic intoxication, but that those infinitely small beings, by reason of a certain activity in connection

with animal functions, lead to the formation of definite compounds that are poisonous, and, therefore, factors of disease.

A writer in the *New York Times* reasonably infers from the statements of men like Roscoe, and Prof. Errera, who read a paper before the Berlin Anthropological Society recently, on the nature of sleep, alleging that it was an effect simply of chemical changes induced by functional activity, that a new diagnosis and a new treatment are suggested by such declarations, since "the disease is neither the symptoms nor the microbe which produces the symptoms, but the process of forming within the organism certain chemical compounds. The treatment would consist, not in drugging the body into weakness or coma, but in stopping such unhealthful chemical activity, or in turning it into new directions by supplying other elements for the operation of healthful chemical processes. Thus the doctor of the new school would be wise in foods rather than in drugs. He would devote himself to synthetic chemistry, and would study how to produce natural chemical combinations artificially."

We accept this writer's last statement, if it be interpreted that the physician of the new school will devote himself to the study of the laws, chemical and otherwise, of food and sanitation, and seek to make of general practice in the community the habit of selecting such articles of diet as contribute to the healthful operation of the organs of digestion, absorption, etc., and of keeping the place of abode, as well as the person, clean, orderly and comfortable.

WHOM TO ADMIRE.

How great the difference in our consideration of a man's private character, if he have shown great ability in some one direction, from the estimate we put on one who has lived merely on the average level of men ! Who thinks of pointing to the extravagant vices of Julius Caesar, his profligacy, wanton immortality and disregard of the claims of friendship and of the obligation of patriotism ? His fame as a soldier, a diplomatist, a statesman, a writer, absorb attention and so dazzle the material eye that the true *man* in Caesar is not seen. So with Napoleon, the brilliancy of his martial career appears to overpower common reflection on his personal morality and the selfish motives that prompted many startling achievements.

It may be proper for us to forget the weakness of men who have done great things for humanity and civilization, but the reflective, scrupulous reader can not help comparing the admirable performances of an eminent man with his moral character, and if that be worthy of esteem his reputation is regarded as more worthy of honor than that of a man whose private life was marred by excesses of appetite and passion.

A writer fairly describes the various play of human character in three terms : " It is perhaps as natural for some people to forget common claims and duties as it is for others to become absorbed in them. One man dwells in thought and shrinks from action, another is always acting without thinking, but, as Ruskin well tells us, ' It is only by labor that thought can be made healthy, and only by thought that labor can be made happy, and the

two can not be separated with impunity.' One is wedded to theories and despises practice ; another with executive power scorns all theory as vaporous and impracticable. One man engrossed with scientific research neglects to control his money matters, and involves himself and others in trouble ; another vigilant and economical, cares not a straw for the most wonderful message that science ever brought. Some are too much absorbed in lofty ideas or venturesome schemes to take proper care of their physical welfare, others too much engaged with the claims of the body to take thought for any thing beyond."

While these illustrations of the one-sided activity of human faculty are common enough they by no means sustain a presumption that mind normally exhibits itself in that way. It can not be said that a state of unbalance is one of health, and that is certainly the state of the mental faculties that is productive of such one-sided activity as the writer describes. There is a necessary loss to the character, aside from loss of a material sort, in such cases, and in the end a sad awakening to a realization of the loss.

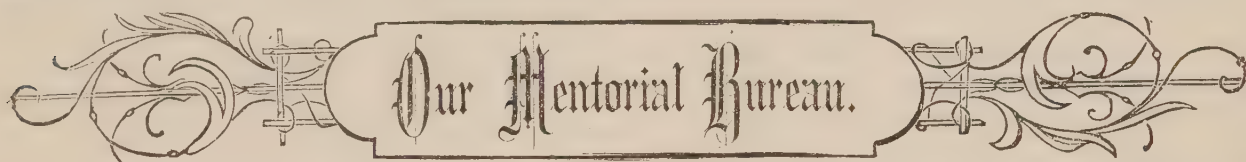
We are not endowed with the many faculties that constitute mind for the purpose of developing and using a few of them only and allowing the others to lapse into weakness and decay ; no, the design, witnessed in our *being*, is to exercise and employ all our faculties and powers, and so develop the mind as a symmetrical, balanced whole.

" It is not a question with most of us whether we shall add to some special greatness other and more general virtues and excellencies, but only whether we

shall endeavor to maintain our individual manhood or womanhood as a balanced whole, rather than become a one-sided, warped, and pitiful fraction. Every one who suffers himself to be so carried away by the love of gain, or the pursuit of fame, or the desire for pleasure, or any other single object, as to neglect the plain and regular duties which fall to his lot, or the rightful claims which family and friends make upon him, sacrifices by so much his personal character, his social value, and his permanent happiness. No amount of business enterprise or success can make up

for a neglected family; no amount of social esteem and popularity can atone for a reckless use of money; no amount of self-indulgent pleasure can compensate for broken health or a disturbed conscience."

The great men whom we should set up for our admiration are those who were not careless of personal duty and obligation; who viewed life on its side of light and joy, recognizing the rights of their fellows, and the mutual interdependence of society; and in their efforts to advance themselves aimed to carry others upward too.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

STOVES AND HEAT.—W. L.—A large stove consuming the same amount of coal as one of smaller size will radiate more heat, and is therefore the more economical. The reason for this is that the larger stove has more surface, and hence when hot its effect is greater upon the surrounding air. Of course the factor of intelligent management must be taken into account with this comparison.

LOOKS OLDER THAN HE IS.—C. R. S.—Generally boys of dark complexion look older than boys of light, but if their habits are good they change little from fifteen or sixteen to twenty besides getting taller. Boys who resemble their mother keep their youthful appearance longer than those who are

like their father. Of course a good constitution underlies the matter of appearance, imparting to the physical functions buoyancy, elasticity and vigor, which must express itself in the physiognomy.

FINGER-NAILS AND TEMPERAMENT.—J. P. C.—Yes, the finger-nails like every other part of the physical organization possess temperamental evidences. Their length, breadth, thickness, toughness, consistency, color, etc., co-ordinate with the constitutional properties. The coarse type of the motive has strong, somewhat irregular creased or ridgy nails. With the vital temperament are associated rather broad, rounded nails that are of soft consistency. The mental temperament has thin, rather long and angular nails, yet symmetrical. A combination of the mental and vital has the finest showing of these digital endings.

THE OLD METHOD MIXED.—Mr. J. V. M., of Adrian, Mich., writes: "I am well pleased with 'Brain and Mind' and find that every day's work in psychology here shows that the old system is not well understood by college students and even college professors. All sorts of splits are found in the old school."

This is the general verdict of all thinking students who compare the old psychological doctrines with the system of Phrenology. The indefiniteness and lack of practical adaptation of the former contrast sharply with the clearness and general adaptiveness of the latter. Assuming that its organology is not in all respects completely demonstrable its classification and definitions, true readings of character in the vast majority of cases and moral teaching entitle it to universal respect.

"BOYCOTT."—J. M.—Although this term is now a part of our common vocabulary, it is probable, as you say, that very few persons can explain its origin. Our sources of information say that it is derived from an incident that occurred in Ireland soon after the organization of the Land League, and in that part of the County of Connaught where the first meeting of the young society was held. Capt. Boycott, the owner of a farm there, was also the agent or superintendent of the estate of Lord Erne, and being somewhat irritable and domineering had subject-

ed the tenants to petty humiliations and annoyances until they became angry and appealed to Lord Erne to dismiss him. Lord Erne refused, and then the tenants combined against him so that no one dared to work for him, no tradesman to serve him with goods. He was isolated by order of the Land Leaguers, and was compelled to accept the services of constabulary to protect the lives of himself and family. His case is a typical one, and for some time attracted little attention, although he and his wife and daughters were left to get in the crops as best they could. His family in other respects were treated with consideration, but Capt. Boycott was hooted and cursed wherever and whenever he appeared.



Communications are invited on any topic of interest; the writer's personal views and facts from his experience bearing on our subjects being preferred.

Love and Marriage.—Love has been the theme of poets and writers in all ages, and they have soared through all the realms of heaven and earth to get figures to illustrate its power and endurance. With scarce an exception they have reveled in imagery when describing its delights; and yet the poets have been, with a few exceptions, the greatest sinners in the matter of faithful, practical love. I am satisfied from long observation, that through ignorance it has caused more misery than all other things put together. And the fact should be proclaimed upon the house-tops in order, not to prevent people from loving, for that would be impossible, but to incite them to use their intelligence and judgment in doing so. It seems to be a law in nature that the sweetest things, when changed in character, become the most bitter, and love is no exception to this rule; and where the parties have no knowledge of human character and use very little judgment the result is most disastrous. The old, old story of two who meet, exchange glances, fall in love, sigh, think, dream about each other, are uneasy when apart and happy when together; treat each other with the

greatest tenderness; comply with each other's every wish and say nothing to hurt each other's feelings, need not be repeated at length. Not being able to live apart they must get married. There is a splendid wedding, and everybody is delighted. For a short time life with them is a bed of roses; by and by a little disagreement occurs, then a quarrel; they begin to cultivate the old Adam that had been kept so carefully out of sight. Now every imperfection of the other begins to be magnified by a powerful telescope, whereas before the big end of the telescope had been turned to look at the loved one's imperfections, and they could not be seen. What a change! This is, in brief, a picture that is unfortunately too true of what is common, and has been going on more or less since the world began, with alterations, additions and modifications. It is very evident to my mind that the All-Wise intended happiness for man, and that ignorance and stupidity bring the misery. The remedy is a knowledge of mind and character, and a willingness to obey its teachings. It is very evident that religious teachers have failed in this respect (and I have the greatest respect for religion). For you will find this matrimonial skeleton in the homes of the most eminent. John Wesley's, for example. Children must be taught the principles of Phrenology; it is of more importance to them for their future happiness and success than all other studies, but more especially in this respect. If honestly used there can be happy marriages. They will not then only marry for a pretty face or a handsome figure and live to curse the day they saw it; but will understand their own character and how to improve it as well as their loved one's. A knowledge of Phrenology would also be of the greatest service to some who are living in matrimonial misery. The following is a case in point: Some years ago a man called at my office for an examination. I told him so many home truths that he was constrained to tell me that he was seriously thinking of separating from his wife, as they could not get along together. When he told his wife what I had said she decided to come and see me also; they came together, when I at once saw where the trouble was. I

told them the source of their quarrels, and showed them there was no real necessity for their unhappiness, and advised them to study Phrenology, which they did, and now the woman is an enthusiastic convert, and says she never was so happy before.

The difficulty in this case was this: He was large in Combativeness, Destructiveness, Firmness, Amativeness, and rather small in Conjugality and Friendship, and small in Agreeableness and Mirthfulness, but had a good degree of intelligence and rather large religious faculties. She was of rather fine and sensitive organization, with large Approbativeness, Combativeness, Destructiveness, Mirthfulness, Friendship and Conjugality, Comparison and Causality, moral and religious faculties active. As soon as they understood each other's nature they could get along very well. WALLACE MASON.

New and Old Ways.—There is a strong inclination in most teachers to subject all their pupils to the same method of instruction. This tendency is probably caused by the necessity of economy of time; but its effect is to retard those whose faculties are not adapted to such training, and to dwarf or warp the natural bent of their minds. If a class of pupils is subjected to the same system of instruction exclusively, some will be benefited and advanced satisfactorily, while others seem to make very little progress and are sometimes actually injured by the process. Although it involves a great deal of extra time and labor, it is the duty of every teacher, so far as he is able, to modify or change his regular methods so as to give each pupil whose mind is not capable of receiving instruction to the best advantage in the ordinary way an opportunity to acquire knowledge according to the peculiar conditions of his own intellectuality.

An instance occurred in the writer's experience a few years ago which will serve as an illustration. One of my pupils was a boy who certainly showed average intelligence out of school but had not succeeded, under the training he had received, in advancing higher than the primary reader. I tried the latest approved method, but though the results with the rest of the class were highly gratifying he seemed utterly unable to make any satisfactory progress, though to all

appearances he was doing his very best to learn and to keep his place in the class. I could not make up my mind that he was too dull to learn if the proper methods were used, so resolved to leave no stone unturned. Coming to the conclusion that the systems of instruction might not be an infallible test of his mental power, I tried the old way of teaching the letters thoroughly first, then forming words of two and three letters, and so on. Imagine my surprise to see him master his first reader under this antiquated process with such avidity that he gained rapidly on his former classmates and at the close of the term was nearly up to them. This boy was the "dull boy" of the school, and in all probability would have continued to be so under the training received by the remainder of the class. It was only an experiment on my part, but it gave him the opportunity of opening the door to higher attainments, and it also demonstrated that the much-lauded new methods do not suit all minds.

D. G. L.

PERSONAL.

REV. J. E. W. BOWEN, a colored Methodist minister, lately submitted his thesis to the faculty of Boston University, and received the degree of Doctor of Philosophy, the first ever conferred upon a negro.

Mlle. MARIE PECCI, the niece of Pope Leo, was married quite lately to Count Moroni, one of the Noble Guards. The Pope is said to have shown great interest in the young lady's attire. He asked his secretary to look after the bride's dresses, and expressly stipulated that they must be white, blue or black.

SAMUEL ADAMS TURNER, familiarly known as 'Squire Sam, is living in South Scituate, Mass., at the age of 98. He remembers Ebenezer Cobb, who died in the first year of this century, aged 107 years, and who had talked with the children of those who came over in the Mayflower. Even a "connecting link" at this day with the Pilgrim Fathers.

MISS BRADLEY, of New York, carried off high honors in Paris at her recent examination at the Ecole de Medicine. Her thesis on "Iodism," was carefully considered by the professors and while they did not alto-

gether agree with her conclusions, they unanimously awarded her the maximum mark of merit.

WISDOM.

Thou must be true thyself,
If thou the truth would teach."

Thrift of time will repay you in after-life with a usury of profit beyond your most sanguine dreams.

We attract hearts by the qualities we display; we retain them by the qualities we possess.

Suard.

The finest and noblest ground on which people can live is truth: the real with the real; a ground on which nothing is assumed.

Emerson.

It is the rule of life to forget the kindnesses our neighbors have done us and to remember only those we have done for them. If the rule could be reversed, what a happy world it would be!

The superiority of man to nature is continually illustrated. Nature needs an immense quantity of quills to make a goose with, but a man can make a goose of himself with one.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

It ain't whut er man is dat makes him happy in dis yere worl'. It's whut he thinks he is.

The Major, who has just popped: "I'm not very old, Miss Daisy. King Solomon was over a hundred, you know, when he married, and I'm sure he made a good husband." Daisy: "Yes; but he had so many wives at a time that the—er—care of him was nicely distributed, don't you know!"

"What about the Monroe doctrine?" was asked of a village candidate. "Oh, well, now," said he, "when it comes to that, thar's just as good doctors now as there ever was. All this talk about Bright's disease and Monroe's doctorin' is nonsense. Dr. Buck standin' thar, is as good a doctor as any uv them."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PUBLICATIONS RECEIVED.

NORWOOD; By Henry Ward Beecher. 12mo. pp. 549. Price \$1.25. Fords, Howard & Hurlburt. New York.

This story of New England village life was exceedingly popular at the time of its first publication. The re-issue since the death of the author has been a successful venture. As *stories* go it does not properly belong to that category. It is an ingeniously constructed vehicle for the promulgation of many charming thoughts, winning truths, and wisdom of the highest order. No one can read it without a growing desire to be better, truer and wiser.

THE MANUAL OF PHONOGRAPHY: By Benn Pitman and Jennie B. Howard. 12mo., pp. 144, cloth. Cincinnati Phonographic Institute.

This is well-named the "Jubilee Edition," as it is issued in the fiftieth year of the old Pitman style of phonographic shorthand. Of course, since then changes and improvements have been made that greatly add to the practical value of the art, but Mr. Benn Pitman has adhered to the old basic principles in his American editions. The extent to which the sale of this simple textbook has been carried is shown by the fact that this is the two-hundredth thousand.

AFRICA AND THE DRINK-TRAFFIC. The National Temperance Society has published in pamphlet form an article by Archdeacon Farrar, contributed to the *Contemporary Review*, upon the demoralization of the native races of Africa by the drink-traffic. The pamphlet also contains W. T. Hornblower's striking letter to the *New York Tribune*, entitled "Rum on the Congo." The appalling facts given in this pamphlet, concerning the terrible havoc caused by strong drink among the natives on the Congo and elsewhere in Africa, should suffice to arouse men and women in our own

and in all civilized countries to the importance of prompt and vigorous action. Price 10 cents. J. N. Stearns.

PRACTICAL CARVING: By Thomas J. Murrey, author of "50 Soups," etc.; Paper, 50 cts.

THE THEORY OF THE MODERN SCIENTIFIC GAME OF WHIST. By William Pole, F. R. S. Paper, 50 cts.

THE GAME OF EUCHRE: By John W. Keller. Paper, 50 cts.

These recent issues of the printer and binder come to us from Mr. Frederick A. Stokes, the successor to White, Stokes & Allen, New York, and are made up in the trim and pleasing style characteristic of the publications bearing the old imprint of White, Stokes & Allen. Mr. Murrey deals with a familiar subject and begins at the beginning by describing what a carving knife is or should be, and how one should hold it, when he sets about the task of serving a joint. As we rarely meet with a good carver this little mentor is an appropriate contribution to the equipment of the diningroom.

People will have amusement in their hours of leisure, and if it is not found at home will seek it abroad. Cards furnish a means of combining intellectual exercise with social enjoyment, and within certain limits can not be said to be more objectionable on moral grounds than other diversions. In the two little treatises entitled as above, their authors have treated Whist and Euchre as games involving much of mental discipline, and therefore as possessing a scientific character. We doubt not that their study will help one to make a better hand at the games.

CURRENT EXCHANGES.

The Standard; weekly. Chicago.

Home Journal; weekly. New York.

The Home Guardian; October. Boston.

Good Health; October. Battle Creek, Mich.

Popular Educator; October. Boston, Mass.

The Laws of Life; October. Dansville, New York.

Christian Herald; weekly. Illustrated. New York.

The Theosophist; September. Madras, India.

Canadian Pharmaceutical Journal; October. Toronto.

National Educator; Semi-monthly. Allentown, Pa.

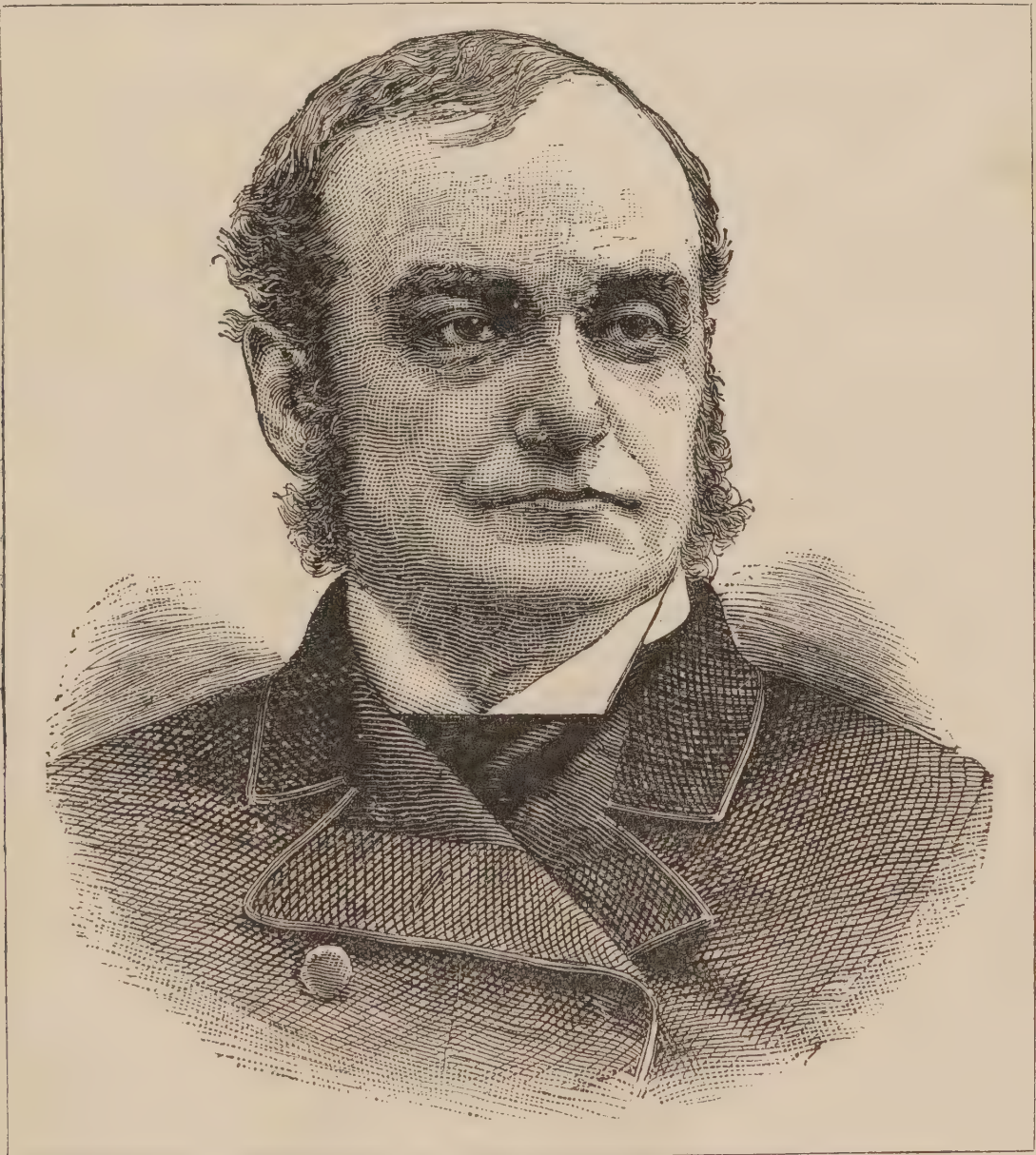
- Harper's Young People*; weekly. Harper Bros. New York.
- The American Art Journal*. Wm. M. Thoms. New York.
- The Platonist*; September. Thomas M. Johnson. New York.
- The Office*; September. New York. A practical journal for business men.
- The American*; weekly. Philadelphia. A well edited journal of current events.
- Bankers' Magazine*; October. New York. A statistical register of banks and bank affairs.
- Journal of American Orthoepey*; July and September. A practical advocate of reform in spelling.
- Rural New-Yorker*; weekly. New York. One of our best agriculturals for suburban and country homes.
- Germantown Telegraph*; weekly. Philadelphia. An old and reliable as well as entertaining family paper.
- Pennsylvania School Journal*; October. E. E. Higbee. Lancaster, Pa. Contains many excellent contributions.
- Herald of Health*; October. New York. "Habits that Tend to Produce Insanity" is one of the interesting articles of this number.
- Le Progres Medical*; September. Bourneville, editor. Paris, France. A repertoire of current events in French medicine and surgery.
- Dental Cosmos*; October. New York. The progress of dentistry makes such a magazine as this useful to every dental practitioner.
- Building*; an Architectural weekly. New York. This weekly furnishes designs for homes from the modest cottage in shingles to the stately mansion in stone.
- Journal of Reconstructives*; October. New York. Discusses Dietetics and Alimentation, Discoveries, Theories and Arguments interesting to physicians, chemists and others.
- The Temperance Caterer*; weekly. England. This magazine contains hints, recipes, etc., for the use of temperance hotels, coffee houses and families—a powerful organ of the reformers.
- Book Chat*; September. Brentano Bros., New York. A valuable reference list of the new books, magazine topics, etc., kept on file and bound; the value of the publications will increase with years.
- Christian Thought*; Rev. Charles F. Deems, editor; Bi-monthly. New York.
- "*Paul's Psychology*." By Prof. Isaac S. Hopkins, D. D., is a remarkable study of that eminent apostle, and all to whom the writings of St. Paul are as precious epistles from one endeared to them will enjoy a careful reading of this article.
- La Gazette Medicale*; September. Montreal. This new candidate for the patronage of the profession has reached No. eight. The Studies of Treatment for Diphtheria are well worth translation into English.
- The Popular Science Monthly* gives us for October something on Evolution, Strange Medicines, Color Blindness, Fetich Faith in Western Africa, The Language of the Emotions, The Theory of Tittlebats, a sketch of Carl W. Schiele, and a variety of miscellaneous items. D. Appleton & Company.
- The Eclectic* for October opens with a dread announcement of The Coming Anarchy, and follows it with fifteen other foreign selections, of which Ireland's Alternatives, The English and the American Press, Wealth and the Working Classes, The Roman Matron and the Roman Lady, The Island of Terk, are noteworthy. E. R. Pelton. New York.
- The Cosmopolitan* has a strong list for October for a new magazine, and indicates enterprise backed with capital. The kind of matter offered its readers is mainly literary and that may take. We note these titles: The Passing of the Buffalo, A Lear of New England, A Remedy for Poverty, The Pigmy Kingdom of a Debauchee, A Buckboard Trip among the Indians, Shakespeare-Bacon's Cipher, Charles Sumner. Schlicht & Field Co. New York.
- The Golden Era*, of San Diego, California, is an ambitious literary venture, an Eastern Yankee might think, if he saw it, and he would probably wonder how on earth it could have survived till vol. 36. But it has in its combination the elements that adapt it to live and to grow in that far Pacific land. Bright, plastic and clear, it reflects the life of California, and is therefore evidently administered by one who knows his clientele. Herr Wagner is editor.
- Harper's Magazine* for October is more than usually rich in illustrations, and given up mainly to contributions of the imaginative class. "The Smallest of American Republics" is a pleasant description of Costa Rica, with historical incidents woven in. "A Dead Portuguese City in India" is from the travel life of a well-known clergyman. "Here and There in the South" has its attraction, because it deals with Louisiana scenes mainly. Good names are under the titles and in the editorial departments.

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[WHOLE No. 588



H. C. POTTER, D. D., BISHOP OF NEW YORK.

ONE of the men who have shown an earnest activity not only in the field of their vocation, but also in movements that relate to community welfare, is the present Bishop of New York. Dr. Potter comes of a family that is distinguished for its connection with the religious interests of New York and

Pennsylvania, and he is the third bishop of that name who has occupied a prominent and influential place in the Episcopal Church. His recent proposition for the building of a cathedral to represent worthily that church in the United States, and which has found a cordial response in the minds of leading New Yorkers of all denominations, may be said to be in keeping with the spirit of the man.

The engraving is a good likeness of Dr. Potter, and represents a fairly balanced temperament, with indications of superior vital powers. The organic development is marked in several particulars, in the crown, in the forehead, and in the temples. We should say, therefore, that he is a man of spirit and aspiration, well-poised, and clear in his convictions, of delicate taste, clear perception, excellent and practical judgment, methodical and systematic, a good organizer, and a good talker. The face shows culture, and a bias toward dealing with people who are refined and of good quality, a high appreciation of the elements that make character noble and dignified. He is by nature suave and dignified, and quick to recognize true gentility in others. We could not think of Dr. Potter's descending to conduct at all trivial or mean. Yet he is not a stiff formalist, a respecter of customs for mere custom's sake. With such a conformation of the upper region of the head in combination with the side organs, he should be known for much independence of opinion and originality of views. His reverence is strong for the great, sacred, and true, and if there be associated with such reverence much delicacy of sentiment and breadth of view it is because of his large Ideality, Constructiveness, and extended practical experience. There is large Language, but not the language that is shown by mere wealth of words; he talks fluently but for a purpose, and usually is less extended than the majority of writers, or talkers, in discussing a subject of im-

portance. He is evidently quick in grasping the witty side of things, and enjoys a good joke, else the engraver has misled us by the lines he has put in the forehead. We can imagine Dr. Potter as a boy to have been bright and merry, catching the ludicrous features of life on the instant, and enjoying them keenly. The man of the church with his important and grave cares has much of the boy's relish for the grotesque although he now views it from a higher plane, and understands its significance in connection with the moral life of men.

Henry Codman Potter is a son of the late Alonzo Potter, third Bishop of Pennsylvania, and of whom, after a long lapse of years, Mr. Robert Graham says, "I have never heard any one in his diocese speak otherwise than with admiration for his judgment and respect for his memory. He is credited with saying that he had thirty-six feet of sons; and if all the other five male members of the family possessed as fair a share of physical and mental vigor as the Bishop of New York, the father of so stalwart a body of men need not be ashamed to meet his enemy in the gate."

After an early training in business pursuits, young Potter studied for the ministry at the Episcopal Seminary, Alexandria, Va.; took deacon's orders in 1857; was successively rector at Greensburg, Pa.; of St. John's, Troy; was Assistant Minister of Holy Trinity, Boston; and, in 1868, was called to the rectorship of Grace Church, New York, succeeding the venerable Taylor, who had been so many years identified with the life of that well-known parish. For fifteen years Dr. Potter labored with great activity in this important field of pastoral duty, during which he infused a new spirit into the aristocratic members of Grace Church, and greatly enlarged the area of its parish work. Very few diocesan or general objects failed to receive some care or consideration from his congregation. Grace Chapel, Four-

teenth Street; Grace House by the Sea; Grace Home for children; and missions in German, French, and Italian attest the fact that Grace Church, occupying the dividing line between up and down town, has sought to do its duty to that vast native and foreign population making New York their home.

Dr. Huntington, the present rector of the church, has followed up the work organized by Dr. Potter so broadly, and to-day Grace Church is recognized as a well-ordered, energetic and beneficent church, second only to Trinity Parish in the volume and steadiness of its missionary activity and general munificence.

When the Diocesan Convention of 1883 with a singular unanimity elected him to succeed his uncle in the bishopric, it was felt that New York had got what was wanted—not a man who had vegetated in Sleepy Hollow, but a man who was tolerant, vigorous, and awake to the changing problems of the times.

As Alonzo Potter was the first bishop of the church to utter a stern word of warning respecting the dangers of intemperance, it was fitting that his son should be among the first to organize the Church Temperance Society for stern battle against the foe, and he has been a prominent member of the executive committee of the society ever since its commencement.

Here the independence of Dr. Potter has been signally shown, perhaps to the surprise of many of the conservative "pillars" of the Episcopal Church. He has shown no narrow, half-hearted spirit, but earnestly and vigorously ad-

dressed himself to the performance of his part in carrying on the Temperance work of the society as soon as he became a member. In one of his utterances on the nature of the church's duty as a reforming factor in the community he points to the Church of England as a fitting example of the American Church, thus:

"It is no exaggeration to say that nothing that has occurred during this century has done so much to restore to the Church of England the sympathy of the common people, and the friendship and respect of the multitudes who are not of her fold, as the organization and work of the Church of England Temperance Society. Founded in no narrow spirit of intolerant proscription, it has welcomed men to its fellowship whether they were total abstainers or non-abstainers. It has been content to point men to the admitted evils of national intemperance, and then to associate them in practical measures for their diminution."

As Bishop, Dr. Potter evidently has made no change in his views of the character of the service that a minister occupying an influential place should render. If he as rector of Grace Church stimulated the minds of his parishioners to a zealous regard for the moral and material needs of the masses in New York, as bishop he shows even a wider view of the duty of churchmen, and in his Cathedral project evidently means to strengthen the hold of Episcopacy on our general population, and extend the scope of its ministrations.

D.

SHAKESPEARE AND BYRON.

TYPES of character reappear in every generation, but at certain periods only do they culminate into prominence. We have the Shakespearian temperament in our own day, but it is not displayed in dramatic composition or, perhaps, even in literature at all, as

the phrase "a Napoleon of finance" is common in the commercial world, and never applied to a military leader. Who would think of using such a word in connection with Grant, Sheridan or Von Moltke?

It is temperament (using the word in a

psychological sense) that determines a man's career. A writer may or may not have intellectual capacity, but if he is interested in influencing the opinions of others by words, he will turn to literature. If he cares for monetary power, or judicial, he will be led to choose business or law, independent of any real capacity. It is when the capacity, and the ambition, and the circumstances of his life, and the age are combined that we have a significant figure of greatness. And of these combinations perhaps capacity is, for a time, the less important. Fifty years ago a reputation for literary talent was far easier acquired than now, and in this day, activity in trade passes current with most people for energy and financial acumen.

When one compares the judgments upon Shakespeare, the diversity of human criticism strongly appears. In William Black's "Judith Shakespeare" there is a suggestion of the man that the author undoubtedly believed to be somewhat near the truth. In many respects it corresponds with Grant White's estimate, who ascribes to the dramatist a dual nature, on one side excessively sympathetic and poetical, and on the other matter-of-fact and harsh. We have in Dickens a somewhat similar mixture of antagonism; the man and his work being seemingly of opposite nature. But I think in Dickens' case this is only apparent. He outgrew a youthful sentimentality and acquired a business-like style of writing, and lived an artificial or theatrical life in general. All his life Dickens seems to have been a lover of amateur acting, and wrote and lived for effect. From all we can gather of Shakespeare, he despised his profession, ignored it, and escaped from it as soon as possible.

It depends very much upon a man's bodily form what manner of life he leads. We do not know whether Shakespeare was tall or short, fat or slim, in good health or dyspeptic, and lacking information upon this point, all surmises as

to the morality or immorality of his career are vain. If he did not himself compose the plays and poems ascribed to him, Bacon was assuredly not the author.

The two temperaments were wide asunder. A poet cares nothing for a fact as a fact. He merely uses it as an illustration of a moral truth. Shakespeare never stopped to inquire whether the toad could possibly bear a jewel in its head. Taking it as a current belief, he rises to a poetical attitude, using it as a simile. But Bacon would have investigated the matter, and perhaps have met his death thus, instead of by the experiment of preserving fowls by stuffing their crops with snow which engrossed him later.

The remarkable quality of Shakespeare's work is felicity of expression. When he cares to exert himself he puts what he has to say into a form which not only shames the attempts of contemporaries, but holds its power to this day. I do not rate his knowledge of human nature as inferior to theirs, or even to that of modern writers; Thackeray, Hardy, even Black or Haggard, not to mention Tennyson or Browning. If Browning were able to express himself with half of Shakespeare's brevity, he would out-rank any poet the world has known.

Possibly Shakespeare was only an editor, using the materials on hand or working over the plays brought him by ambitious scribes. This might explain a certain obscurity of life, for a business man is of all things secretive, while a *litterateur* must tell the world his trials and his disappointments.

Lowell calls poetry an overheard soliloquy, and Byron is the type of that order of mind as Shakespeare is of the other. It is common to speak of such a man as weak, but there is nothing weak in yielding to a temperamental impulse. All poets have been gossips and babbles, from Homer down. If you can not distinguish their real utterances from those

they put into the mouths of their characters, this is oftener the result of consummate art than of real reserve. He thinks you will understand and sympathize with him. The great Goethe was not above this self-expression. He made it the groundwork of almost of all his shorter poems. He said it was the basis of true occasional poetry. And Schiller, dearer to most Germans than his great associate, made himself their mouth-piece by opposing the despotism of a military order.

Curiously enough, Shakespeare and Byron, and almost all the leading English poets, are strongly conservative. They are on the side of the nobility and against radicals. Except Shelley, we have not a single first-class revolutionary poet. Now France and Italy, Russia and Poland, and even Spain and Germany have a thousand. It is not that England is freer, or that the English despise poetry and art, and would as soon think of being influenced by what a writer should write, as to follow a fashion set by a mountebank or a beggar. Byron expresses this contempt for poets quite as strongly as though he had no aspirations for a seat on Parnassus. He wishes us distinctly to understand that he hopes to escape the disgrace of winning fame by writing poetry by reason of being a lord and an aristocrat.

Something of this is shown by Howells in his stories. Though he is a newspaper man and a magazine writer, he makes the indirect slurs, which he casts upon this class, a covering for an implied belief that he himself is superior to the failings of the class, and ought to be included in the ranks of the Napoleons of finance or law, or gentlemen of leisure, because he sees so plainly to what bare uses pen-craft leads at last.

The question is not unfrequently asked, to what would Shakespeare have applied himself if he had lived in this day. All agree that dramatic literature would not have attracted him. Some have thought he would have become the managing

editor of a great city daily. This requires ability, administrative as well as literary, it is a position entailing a great deal of ceaseless hard work, and I think Shakespeare was a lazy man. Supposing him to have been mainly editor, compiler, I judge that he could have written all his plays in a year. Scattered through a dozen years this allowed him a good many months of loafing about. Grant was a tremendous loafer. So was Thackeray. So are a good many other men of exceptional brain power. Descartes said he owed all his reputation in making discoveries to the possession of sufficient money, enabling him to lie a-bed all the forenoon and meditate. Edison invents in a comatose state of such intense abstraction that he forgets to eat. Your hard-working, time-engrossed professors of colleges, editors of newspapers, business managers, don't invent anything, write poems or discover new relations. It is not in their temperament, but they have not the time.

One thing is certain; there are no fixed laws. I mean that there is no law so absolute that it is not at some time abrogated in favor of another. Gravity is a tremendous power, but it lifts birds into the air and light and heat are its superiors. Reality is a terrible truth, but poetry shows its heavenly shining. Perhaps it does no harm to condemn poetry, and Shakespeare may have meant what he said when he describes art as the truest when most feigned, but I have no doubt he was talking for others and not for himself. It was as if he said: "There is room for one more idle man in the world, and I would like to be that idle man. To do so safely, I must forget my personality and call no attention to myself." This he did. But Byron had not a knowledge of this higher truth. He perceived dimly that literature gave a man distinction, if also a lord, and he worked hard, like any man of literary aspirations, having the literary organization and its ambitions.

C. A. SHAW.

NOTABLE CHARACTERS OF THE DAY.—3.

JOHN W. MACKAY. The possession of wealth carries with it an aureola of power. Treat it as the moralist may, stamp it as "filthy lucre," call it a mere creature of selfishness and greed, yet money to the world at large will be an object of admiration and worship. It procures the thousand things that make for comfort, and the ten thousand things that caprice and appetite, luxury and pomp desire. It seems to the worldly wise as the *sine qua non* of happiness, the grand instrumentality that must secure one's end whatsoever it be, if

grade exemplify the dignity and strength of true men.

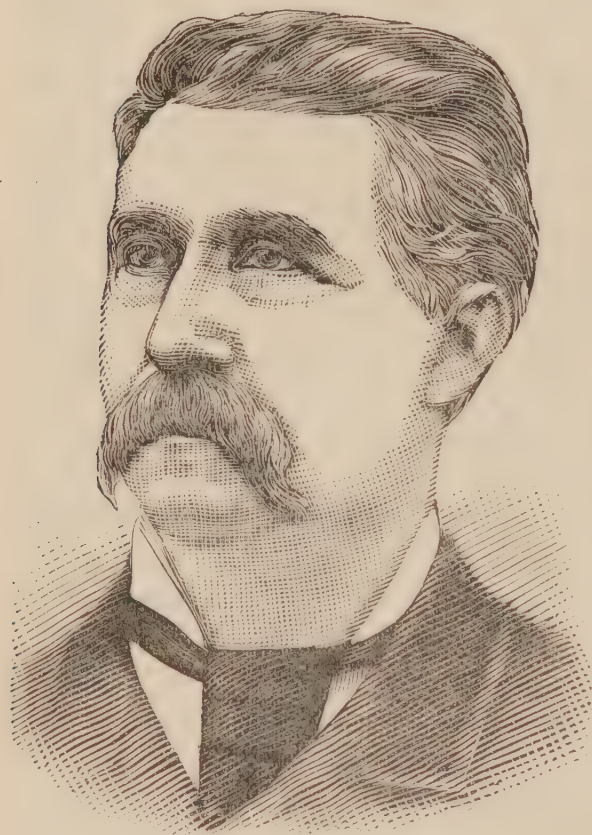
It does not follow, however, that a rich man is necessarily a mean and selfish person. No. Society rejoices in the good fortune of possessing noble spirited, magnanimous souls to whom wealth is a blessing because they use it aright to bless others.

One of the most extraordinary instances of fortune-making in the history of our country is that of John W. Mackay, who, from working as a hired laborer in the mines of California, rose to the possession of so many millions that he is one of the three or four richest men in the United States.

His head and face are invested with the force and emphasis of a strong and positive character associated with a vigorous and powerful body. That muscular neck, with the peculiarly poised head, intimates pluck, audacity and determination. Strength is written all over the face. We should consider Mr. Mackay one of the last to cringe or knuckle to any man, and rather slow on any occasion to say, "By your leave, sir." It may be that the possession of so many millions has added much stiffness to a naturally strong backbone. The head is a thoroughly practical business head; economy, mechanical skill, executiveness are striking elements in its organic composition.

John W. Mackay is an Irishman, having been born in Dublin in November 1835, but while a youth came to the United States and was for some time employed by Webb, the ship-builder of New York. While the California gold fever raged throughout the East young Mackay finally yielded to the excitement; and in the autumn of 1852 we find him sailing around the Horn in one of Webb's vessels.

On his arrival in California he went immediately to Sierra county, and commenced placer mining on a small scale.



JOHN W. MACKAY.

employed with skill and freedom. The man of the world says, money is all powerful, the lever that moves society and makes subordinate even the noblest intellect.

One who considers the uses to which money is applied, and the character of hundreds who hold it, might feel persuaded that the worlding is right, but we are thankful to say that there is a grade of manhood that stands above the plane of money, and they who belong to that

He worked hard and was able to accumulate a small sum above his expenses: His first really fortunate hit was made in the "Kentuck" mine. In 1863 he formed a business arrangement with J. M. Walker, of Virginia. The next year the partnership was enlarged by the addition of Messrs. Flood and O'Brien, and all worked in harmony to good profit, for four years, when Mr. Walker withdrew and his place was taken by Mr. James C. Fair.

On the 25th of November he married the daughter of Col. Hungerford. Mrs. Mackay has resided several years in Europe, where her children are being educated. Mr. Mackay has a permanent home in Virginia city, Nevada, and crosses to Europe two or three times a year to see his family. Personally he is a man of herculean form and strength.

In August 1883 Mr. Mackay accepted the Presidency of the Postal Telegraph Co., whose object was to rival the Western Union, and later he and Mr. Bennet of the *Herald* newspaper formed a company to lay a cable across the Atlantic, which is now in full operation. The competition made by this cable has greatly reduced the prices for cablegrams and promoted international commerce.

THE MARQUIS OF LANSDOWNE. A large, globular head appears to be that of the present Governor-General of Canada. The organization, intellectually, we should take to be of the reflective type, while the emotive faculties are active and strong. He is a man of very positive opinion, conservative and guarded, excitable, perhaps, yet not without a good degree of dignity and self-appreciation. He likes place and admiration, believes in class distinctions and class privileges, yet has his own views concerning men and measures. That nose is a strong one, and if backed with large Firmness, Combativeness and Acquisitiveness he is not the man to yield ground on any question without a hard struggle. He is more a thinker than a talker; probably reserved and distant toward strangers,

but among his familiars sympathetic, cordial and confidential. The nervous element seems to be much more marked in his composition than the vital, and that condition may be a source of more or less disturbance in his life.

Like many of the British nobility Lord Lansdowne is heavily burdened with names, for he is designated in full



LANSDOWNE.

thus: Henry Charles Keith Petty Fitz-Maurice, Marquis of Lansdowne, and was born in 1845 and educated at Oxford. He succeeded his father to the Marquisate in 1866. In 1869 he was married to Lady Maud Evelyn Hamilton, youngest daughter of the first duke of Abercorn. The Marquis of Lansdowne has an illustrious lineage, tracing his origin through the Earls of Kerry to Walter Fitz-Otho, Castellan of Windsor in the eleventh century. His grandfather was an enlightened statesman and eloquent public speaker, and was Chancellor of the Exchequer and Lord President of the Council. His father was a Lord of the Treasury and Under Secretary for Foreign Affairs, and he naturally, therefore, is no stranger to public life. After the retirement of the

Marquis of Lorne he was appointed Governor-General of Canada, and inaugurated October 22, 1883.

FRANCES HODGSON BURNETT. The well-known author who next claims attention has a clearly cut face, with the expression of sharpness, readiness and spirit. She has, we should infer, much of her father in the intellectual cast of her mind, a disposition to inquire and observe for herself and to form her own opinions independently. The head appears to be large, and well-developed in the crown and back part, giving her



FRANCES HODGSON BURNETT.

more than ordinary powers as a woman, on the side of individual effort and aspiration, and also imparting strong social feelings.

In personal appearance Mrs. Burnett is decidedly of the English type, being of light complexion, with gray eyes and a tendency to plumpness. The vital organism is excellent, giving health and ample support to the sprightly and susceptible mental faculties.

From a sketch that appeared not long ago in the *Southern Woman's World*,

the following particulars of her career were obtained.

Frances Hodgson Burnett was born in the manufacturing city of Manchester, England, about the year 1848. Her father died when she was a child, leaving but little for the support of the widowed mother and five children—so that her early years were marked by poverty and want. Soon after the death of her father, her mother came to this country and settled in Tennessee.

Frances developed a passion for books at an early age and was a dreamer from early girlhood. For a long time she had to be kept entirely from books, and under the spur of this punishment, she created romances of her own. When yet a mere girl she used to write fictional sketches of a very precocious nature.

The first story she wrote with a view to publication was "sketched out in England," but completed in her Tennessee home. She was teaching at the time, and as most of her pay was received in the shape of vegetables, flour, bacon, etc., she found it difficult to buy the postage stamps necessary in forwarding her manuscript to a publisher. But by picking a lot of blackberries early one morning and carrying them to market, she obtained sufficient money to buy the stamps, and the story was sent to *Ballou's Magazine*. The editor replied that he would publish the story but not pay for it. The independent little woman thought if it was worth publishing it was worth paying for, and so she had it returned. It was next sent to *Godey's Lady's Book*, which at once accepted it. From this magazine, Frances Hodgson received her first remuneration for literary work.

After her first stories had found a place in a magazine, other publishers, *Ballou's*, *Peterson's*, *Harper's*, *Scribner's* and *The Century* magazines took and paid for her literary work. "Dolly" was the first to appear in book form, it having been issued as a serial in the *Ladies' Friend*, in 1872.

Mr. Charles J. Peterson, of Philadelphia, was the first publisher to encourage Mrs. Burnett in her literary aspirations. To him, more than to any other, she attributes her early success, and possibly, without his timely aid, she might have given up literature altogether. For several years she wrote for his magazine, and from time to time he would advance her pay without a single request from the modest author. "I know," said Mr. Peterson, "that Mrs. Burnett will rapidly advance in popularity, and I may not be able to pay her such prices as she can command. When that time comes I want her to write for others, and not feel that she is under obligation to me. I am more her friend than her publisher." Mr. Peterson even advanced money to Mrs. Burnett and her husband when they went to Europe a few years later to enable Mr. Burnett to complete his medical studies in Paris.

In "That Lass o' Lowrie's," Mrs. Burnett made her "hit." It first appeared as a serial and then in book form, and wherever read, has been immensely popular. The book contains more than many trivial readers see. The manner in which she uses the broken dialect of the miners shows her control over it, which, to say the least, is remarkable. The poor parson is a stronger character than he appears at a casual glance, and the same may be said of Anice, exclusive of the more powerful character. The description of Laurie's brutal assault upon Joan at the door of the cottage on the Knoll Road, while the rain was dripping piteously down, is a strong one—and pretty—very pretty, indeed, and artistic is the garden scene on the last page, where she rested her face on her arms, leaning against the tree, while her "hand clung among the ivy leaves and crushed them." The character of "owd" Sammy Craddock gives to the story its just amount of pleasant relief in the line of quaint and picturesque humor.

Mrs. Burnett has a pleasant home in Washington, where she and her hus-

band have resided since their return from Europe several years ago. Dr. Burnett has a position in one of the Hospitals as opthalmic surgeon while Mrs. Burnett industriously plies her pen in order to keep up with her many magazine engagements.

CLINTON B. FISK. There are thousands of people who rejoice in the belief that the cause of Temperance reform is gaining in some of our states, and when a convention is held by Prohibitionists and measures of a political bearing are instituted, it would appear that their influence is growing in public sentiment. At Syracuse, New York, a convention of Temperance men and women was held



CLINTON B. FISK.

not long since which, by its large attendance and the distinguished character of many of its participants, commanded the respect of the community at large. People who "drink" are beginning to realize that the Temperance movement has become a power in the land, and the old political parties recognize the importance of its influence on the result of the election. Its cooperation or antagonism is no longer a

matter of indifference to Republican or Democrat, for with its favor one of these parties may be sure of success at the ballot box.

In New Jersey the Temperance people have voiced their opinion of the state of society over there by holding a formal meeting and nominating candidates for state offices, Clinton B. Fisk being named for the governorship. This gentleman is well-known for his interest in moral, educational and church progress, and would be as likely, we think, as almost any other man of the reformatory type to be successful in a sharp political contest.

As the portrait shows he is well-balanced, a fine physique furnishing ample support to the large brain. The expression is kind, the features formed on that liberal plan that indicates the man of broad views and generous motives. He has the intellect for management and oversight; can understand and master the details of business that is conducted on a large scale. He is a natural superintendent where men and affairs are to be controlled and made co-operative for the securing of a given end. He would make a good governor without doubt.

Clinton B. Fisk was born at York, Livingston county, N. Y. In his early childhood his father emigrated to Michi-

gan. He studied closely, paying in part his own expenses during his preparatory course, to enter the University of Michigan, but bad health forced him from his studies into commercial pursuits. After a successful career as merchant, miller and banker in Michigan, he removed to St. Louis in 1859. Early in the late war he was appointed Colonel of the Thirty-second Missouri Infantry in the Union army and served with much fidelity; was promoted to Brigadier-General in 1862; and in 1865 to Brevet Major-General of Volunteers. After the end of the war he was given the place of Assistant Commissioner under General Howard in the management of the Freedmen's Bureau in Kentucky and Tennessee.

Gen. Fisk is President of the Board of Trustees of Fisk University, for colored students, at Nashville, a trustee of Dickinson College, Penn., of Drew Theological Seminary, also of other institutions, including the American Missionary Association; he is also a member of the Book Committee of the Methodist Episcopal Church, and has done that Church conspicuous service in his work toward the reunion of the Northern and Southern branches. As a speaker he is one of the happiest for a general audience, being animated and humorous.

EDITOR.

MATHEMATICS IN DELINEATING CHARACTER.

I HAVE frequently endeavored to find a system of calculation adapted to the more ready delineation of character from the size of organs, as marked on charts, and by classing of groups, of which I send explanations that can be easily comprehended by those who have but little knowledge of the science of Phrenology. By adding together the groups which have a similar tendency three great divisions are formed, the Restraining, the Selfish, and the Subservient; the Restraining group contains the Moral

sentiments, and the Rational and Perfective organs; the Selfish group contains the Domestic and Selfish propensities, and the Selfish sentiments; and the Subservient group consists of the Observing, Literary and Continuing faculties; Firmness and Continuity, however, situated in the same regions as the domestic propensities and selfish sentiments, properly belong neither to one nor the other, so I have added them to the Subservient group (the function of Firmness being to sustain, and that of Continuity

to continue the action of other faculties), which equalizes the three groups, each containing fourteen organs.

The character will be balanced between the Selfish and Restraining groups, the Subservient acting under or serving the predominant.

The scale of faculties in marking charts ranges from 1 to 7. The maximum indice is 7.

Taking 7 as the indice of each faculty, we find that the sum of the whole number of faculties multiplied by the maximum indice gives 294, the temperaments 21, and the qualifications 21, the total being 336, the highest possible development.

Having found the larger of the two groups we next proceed to find the largest of the divisional groups of which it is composed; this is done by adding up the indices of each divisional group by itself and dividing the sum by the number of organs in the group, which will give the average. The divisional group with the greatest average will be the leading division in the greater group, the largest organ in the division will be the leading organ in that division and the leading organ of the group. For instance, if the Restraining group is the largest and the Moral faculties show the greatest average and Conscientiousness is the largest organ in the Moral faculties, then the ruling sentiment of the

mind is justice, and the desire to act justly is the leading trait of character.

If we wish to ascertain how far the whole man has developed, or should develop, this is the formula: As the maximum indice of the head is to the sum of the maximum indices of the Organs, Temperaments and Qualifications, so is the indice of the head (as marked on the chart for delineation) to the Harmonious development of the whole man. Or otherwise, supposing the marked chart to show the number of head to be 6.—

Then as 7 : 336 :: 6 : 288. 288 would be the harmonious development for a number six head.

If the sum total of the markings on the chart is less than the number obtained by the above formula, it indicates that the mind has not been sufficiently developed; if, on the other hand, the chart markings are in excess of the harmonious number, it shows considerable development of the mind.

If we wish to find how far each divisional group coincides with a harmonious development, this is the formula: Subtract the sum of each divisional group in succession from the harmonious sum of that divisional group, the difference will show the excess or deficiency of each group. Then divide the difference by the number of organs in the group, and it will give the average excess or deficiency.

THE TEMPERAMENTS AND QUALIFICATIONS.

The sum of the indices of the Temperaments is 21.

Motive. Vital. Mental. 3 Temperaments $\times 7 = 21$.

The sum of the Qualifications is 21.

Organic Quality. Activity. Excitability. $3 \times 7 = 21$.

If the sum of the temperaments is greater than the qualifications, it indicates that the individual is not manifesting his full powers. On the other hand, if the sum of the qualifications is greater than the sum of the temperaments, it indicates that there is too great a strain on the mind, and that the body is suffering by it, and the power manifested will be greater than we have any right to expect.

I here give at length the ideal standard, the indice throughout being 7.

NUMBER OF HEAD 7.

Temperaments { Motive. Vital. Mental. } . . . 3 Temperaments $\times 7 = 21$

Qualifications { Organic Quality. Excitability. Activity. } . . . $3 \times 7 = 21$

Selfish Group.	Domestic Propensities.	{ Amativeness. Conjugality. Paternal Love. Friendship. Inhabitiveness. }	5×7=35	} 98.
	Selfish Propensities.	{ Vitativeness. Combativeness. Destructiveness. Alimentiveness. Secretiveness. Cautiousness. Acquisitiveness. }	7×7=49	
	Selfish Sentiments.	{ Approbateness. Self-Esteem. }	2×7=14	
Restraining Group.	Moral Organs.	{ Conscientiousness. Hope. Spirituality. Veneration. Benevolence. }	5×7=35	} 98.
	Perfective Organs.	{ Ideality. Constructiveness. Sublimity. Imitation. Mirthfulness. }	5×7=35	
	Rational Organs.	{ Causality. Comparison. Human Nature. Agreeableness. }	4×7=28	
Subservient Group.	Observing.	{ Individuality. Form. Size. Weight. Color. Order. Calculation. Locality. }	8×7=56	} 98.
	Literary.	{ Time. Tune. Language. Eventuality. }	4×7=28	
	Continuing.	{ Firmness. Continuity. }	2×7=14	
Maximum total.....			336	

To show how the foregoing rules are applied to the delineation of character, I will give as an illustration the following chart marked from life :

Temperaments.	Motive 5	Qualifications.....	Organic Qual. 5
	Vital 5½		Activity 4¾
	Mental 5½		Excitability 5
Domestic Propensities.....	Amativeness 5½	Conjugality 6	
	Paternal Love 5½	Friendship. 5½	
	Inhabitiveness 5½	Continuity. 5	

APPROXIMATE SIZE OF BRAIN NUMBER 6.

Selfish Propensities.....	Vitativeness 5	Combativeness 4¾	
	Destructiveness 5¼	Acquisitiveness 5	
	Secretiveness 5¼	Cautiousness 5½	
Selfish Sentiments.....	Self Esteem 4¾	Firmness 5	
	Approbateness 5½		
Moral and Religious Sentiments...	Conscientiousness 5½	Hope 5½	
	Spirituality 5¾	Veneration 5¼	
	Benevolence 5¾		
Self Perfecting Group...	Constructiveness 6	Ideality 6	Sublimity 5½
	Imitation 6	Mirthfulness 5½	
Observing Faculties.....	Individuality 5	Form 5½	Size 5½
	Color 5½	Order 5¼	Calculation 5
Literary Faculties.....	Time 5½	Tune 5½	Language 5
			Eventuality 5
Reflective Faculties	Causality 6	Comparison 5½	Human Nature 5½
			Agreeableness 6

AGE 35 TO 37 YEARS.

1st. Above or below proper standard for fully using the powers healthfully.

	Vit. Mot. Ment.		
Temperaments.....	5	+ 5½	+ 5½ = 16
Qualifications.....	5	+ 4¾	+ 5 = 14¾

Working under 1¼

HARMONIOUS DEVELOPMENT.

As 7 : 336 :: 6 number of head : 288.

ACTUAL DEVELOPMENT.

Selfish Group.....	{ Domestic	5½ + 6 + 5½ + 5½ + 5½ = 28
	{ Selfish Propensities and Sentiments.	5 + 4¾ + 5¼ + 5½ + 5 + 5 + 5¼ + 5½ + 4¾ = 46
Selfish total.....		74
Restraining Group.....	{ Moral.....	5½ + 5½ + 5¾ + 5¼ + 5¾ = 27¾
	{ Perfective.....	6 + 6 + 5½ + 6 + 5½ = 29
	{ Rational.....	6 + 5½ + 5½ + 6 = 23
Restraining total.....		79¾
Subservient Group.....	{ Observing.....	5 + 5½ + 5½ + 5 + 5½ + 5¼ + 5 + 5¼ = 42
	{ Literary.....	5 + 5¼ + 5½ + 5 = 20¾
	{ Continuing.....	5 + 5 = 10
Subservient total.....		72¾
1st Restraining Group.....		79¾
2d Selfish Group.....		74
Subservient Group.....		72¾
Temperaments.....		16
Qualifications.....		14¾
Actual Development.....		257¼
Harmonious Development.....		288
Actual Development.....		257¼
Deficiency.....		31¾

AVERAGE OF DIVISIONAL GROUPS TO DETECT THE MORE POWERFUL.

TOTALS.

1st Domestic.....	28 ÷ 5 organs	= 5.6
2d Selfish Propen. and Sub.....	46 ÷ 9	" = 5.1
3d Moral and Religious.....	27¾ ÷ 5	" = 5.55
4th Perfective.....	29 ÷ 5	" = 5.8
5th Observing.....	42 ÷ 8	" = 5.25
6th Literary.....	20¾ ÷ 4	" = 5.1845
7th Rational.....	23 ÷ 4	" = 5.75
8th Continuing.....	10 ÷ 2	" = 5.

GROUPS ARRANGED ACCORDING TO POWER.

1st Perfective.....	5.8
2d Rational.....	5.75
3d Domestic.....	5.6
4th Religious.....	5.55
5th Observing.....	5.25
6th Literary.....	5.1845
7th Selfish Propen. and Sub	5.1
8th Continuing.....	5.0

DEFICIENCIES OR AMOUNTS BELOW HARMONIOUS DEVELOPMENTS.

	Size of Head.		Number of Organs.		Harmoniousness.
Domestic.....	6	×	5	=	30
Selfish Sentiments and Propensities..	6	×	9	=	54
Moral.....	6	×	5	=	30
Perfective.....	6	×	5	=	30
Observing.....	6	×	8	=	48
Literary.....	6	×	4	=	24
Rational.....	6	×	4	=	24
Continuing.....	6	×	2	=	12

	Harmonious.		Actual.		Difference.
Domestic.....	30	—	28	=	2
Moral.....	30	—	27 ³ / ₄	=	2 ¹ / ₄
Perfective.....	30	—	29	=	1
Observing.....	48	—	42	=	6
Rational.....	24	—	23	=	1
Literary.....	24	—	20 ³ / ₄	=	3 ¹ / ₄
Continuing.....	12	—	10	=	2
Selfish Sentiments and Propensities...	54	—	46	=	8

AVERAGE DEFICIENCIES OF GROUPS.

	Deficiency.		Number of Organs.		
Domestic.....	2	÷	5	=	.4
Moral.....	2 ¹ / ₄	÷	5	=	.45
Perfective.....	1	÷	5	=	.2
Observing.....	6	÷	8	=	.75
Rational.....	1	÷	4	=	.25
Literary.....	3 ¹ / ₄	÷	4	=	.8125
Continuing.....	2	÷	2	=	1.0
Selfish Sentiments and Propensities.	8	÷	9	=	.9

Groups arranged in the order of their deficiency :

1st	Selfish Propensities and Sentiments.....	9
2d	Liter ry.....	.8125
3d	Observing.....	.75
4th	Religious.....	.45
5th	Domestic.....	.4
6th	Rational.....	.25
7th	Perfective.....	.2

Largest Organs in Divisional Groups :

Perfective	{ Constructiveness	6	Rational.....	{ Causality	6
	{ Idealty	6		{ Agreeable	6
	{ Imitation	6			
Religious.....	{ Spirituality	5 ³ / ₄	Observing	{ Form	5 ¹ / ₂
	{ Benevolence	5 ³ / ₄		{ Size	5 ¹ / ₂
				{ Color	5 ¹ / ₂
Domestic.....	{ Conjugalitv	6			
Literary.....	{ Time	5 ¹ / ₄	Selfish Sentiments and Propens..	{ Caution	5 ¹ / ₂
	{ Tune	5 ¹ / ₂		{ Approbate	5 ¹ / ₂

Smallest organs in groups :

Perfective.....	{ Sublimity	5 ¹ / ₂
	{ Mirthfulness	5 ¹ / ₂

Domestic.....	{	Amativeness	5½	Rational...	{	Comparison	5½
		Paternal Love	5¼			Human Nature	5½
		Friendship	5½				
		Inhabitiveness	5½				
<hr/>							
Religious.....	{	Veneration	5¼	Literary	{	Eventuality	5
		Hope	5½			Language	5
		Conscientiousness	5½				
<hr/>							
Observing	{	Individuality	5	Selfish Sentiments and Propensities....	{	Combativeness	4¾
		Weight	5			Self Esteem	4¾
		Calculation	5				

These give the three great groups as found in seven charts marked from life for delineation ; to show there is considerable variation from the ideal standard.

	Selfish.	Restraining.	Subservient.
No. 1.....	73	81½	72½
“ 2.....	74¾	80	75¼
“ 3.....	71½	70½	68¾
“ 4.....	69	74¼	73
“ 5.....	78	81¾	81½
“ 6..	73½	73¾	75¼
“ 7.....	72½	83½	77½

Hobart, Tasmania.

JOHN J. SHERIDAN,

CHRISTMAS THOUGHTS FOR SORROWING HEARTS.

IN many homes, the merrymaking and festivity of the holiday season touches with a jar heartstrings still vibrating with the keen pain of recent and heavy bereavement. There are those whose eyes are moist with tears, whose hearts are swelling with sad, sweet memories, as they contemplate the vacant seat at the fireside, and listen vainly for the cherry, loving greeting of a dear voice which never before failed to add to Christmas cheer.

My message to such is the one which stills my own grieving, and shames rebellious thoughts—the blessed assurances that those dear ones who no longer walk with us the paths of earth, will, this precious Christmas-tide, be partakers of joys illimitable; will have part in the grand Alleluia chorus with which the angels celebrate the Nativity. Their voices will swell with a fulness of harmony and rapture never dreamed of on earth. The care, the grief, the pain, which forever put minor strains and

unwilling discords into the highest anthems of praise which the children of earth can offer, mar not the glorious voices of those who “walk in white” singing the “new song” of “blessing and honor, and glory and power, unto Him that sitteth upon the throne, and unto the Lord forever and ever.”

Shall we not allow this symphony of Heaven to find a true rhythmic response in our hearts, sorely wounded though they be? Shall we not at least be happy in knowing that they are happy? And, further, shall not the consciousness that at some future day, we too, with them shall be “forever with the Lord” soothe our hearts like balm from Gilead?

He who has exalted our dear ones to be with Him and has thus made them “most blessed forever,” has not left us comfortless, if we but open our hearts to the true source of comfort, while with our hands we bravely take up the “next things” of love and duty.

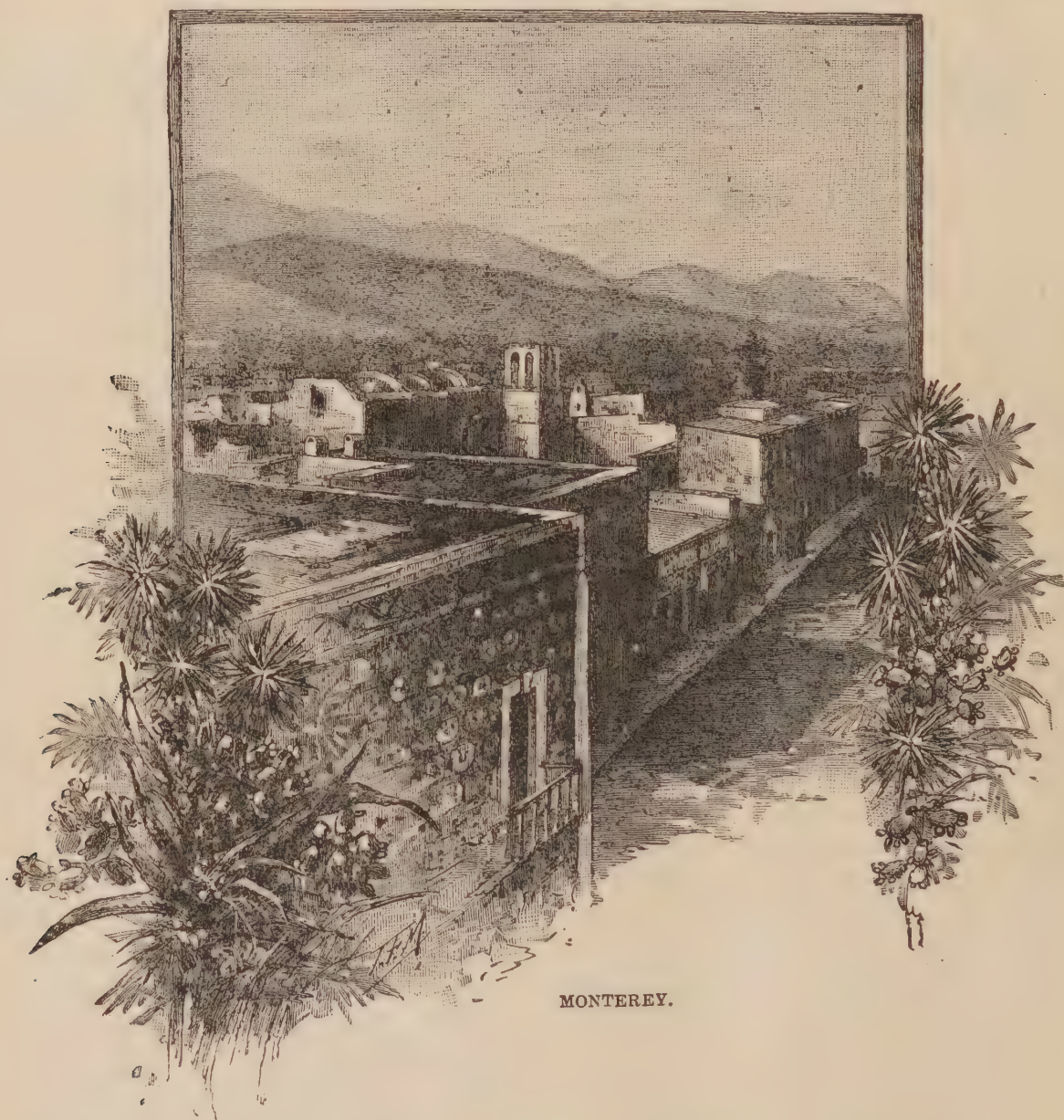
HELEN L. MANNING.

PLEASANT WINTER QUARTERS.

HERE, at the north, suggestions, and those not of the gentlest type either, are already being made by his advance guard of the near approach of winter. To many of us there is no alternative but to brave the rigors and dismal moods of that boisterous season, meanwhile endeavoring to summon the

hind; possibly they may even feel some degree of compassion for the friends who are going about with blue noses, tingling ears, tearful eyes and chilblains.

But the migratories are not likely to waste much time in sympathy while they are reveling in glories that transcend the northern summer-time by reason of



MONTEREY.

necessary resolution to "make the best of it."

Others, happily for them and for the needy ones where the flight ends, can hie away to sunnier climes, where they may laugh at the thought of the shivering fellow-mortals who are prisoners in the ice-bound regions left far be-

hind; possibly they may even feel some degree of compassion for the friends who are going about with blue noses, tingling ears, tearful eyes and chilblains.

It is not to be wondered at that one should feel like spreading wings and

joining the southward flight of the birds (How long shall we need to wait for veritable wings to waft us about in peace and quietness instead of enduring the noise and discomforts of railways?), when the north wind comes prowling around, wrenching the leaves from the trees, withering the flowers, browning the verdure, sending the currents of vegetative life to an underground sleep; chilled to the marrow, and with a creeping of the flesh that will tenaciously cling to the poor victim until June cries "Enough, begone," the owner of the

ancient history, and containing matters of wide interest.

Politically, Mexico is divided into twenty-seven States, one Federal District and one territory. Many of the ideas embodied in the government of Mexico are copied from that of the United States.

To the genius, enterprise, and capital of citizens of our own Republic, Mexico is indebted for the recent rapid development of her amazing mineral resources. Fortunately for all concerned, through the patriotic spirit, which is the central



CITY OF MEXICO.

currents of mortal life quakes at the thought of breasting the storms and winds which are in store and daily nearing the explosive point.

The southward flights lead to many interesting and pleasant lands. Among them, and by no means least of them, is Mexico.

We are coming to be so vain-glorious over the greatness of our own land that it is a matter of surprise to many to learn that Mexico is a vast country, of wonderful resources, strongly allied to

motive of the government of Mexico, all the elements of progress, ideas of utility, and public-spirited endeavor are warmly and promptly seconded.

The prosperity which seems to be near at hand for that land of historical romance, the one-time home of the Montezumas, interests the capitalists of all nations. Enterprising merchants are laying their plans to secure a share in that "good time a-coming" to Mexico.

And so it chances that with the capitalist and the merchant, the artist and the

naturalist, already singing the praises of Mexico, the tourist and winter-time migratories have turned their faces thitherward, and have reaped a grand harvest of pleasure, bric-a-brac, and delightful memory stores in so doing. As those who have traversed the ways and by-ways return with words of praise the tide of pilgrimage increases, and not to have wintered in Mexico will soon mean as much as not to have seen the Yosemite, the Bermudas, or Europe.

The old route to Mexico by steamer from New Orleans to Vera Cruz, and thence by rail to the City of Mexico, had in it the disadvantages of a poor harbor at Vera Cruz, the menace of yellow fever in the city and the danger from the dreaded "norther," which will often reach such a stage of violence that all vessels must needs "put to sea." There are now, however, two overland routes which are much to be preferred to that by sea. One leads out from Laredo, Texas, the other from El Paso, Texas, either of which is reached from St. Louis, Mo., *via* the Missouri Pacific Southwest System of Railroads.

Going by the way of Laredo, the traveler crosses the Rio Grande, and after a comfortable and pleasing ride enters the most thriving city of Northern Mexico, Monterey, capital of the State of Nuevo Leon. One of the most celebrated of the historical cities of the Republic, Monterey, is also one of the most charming. Lying in a picturesque valley between lofty mountains, the approach is a panorama of delightful surprises to the artistic eye.

Saltillo, capital of Coahuila, is the next point of interest. In contrast with Monterey, Saltillo hangs airily on the brow of a hill, surrounded by mountains of grand height. In Saltillo the tourist finds a typical Mexican town; as yet the foreigners have not influenced the people to the adoption of American customs and English words. Only a few miles further south lies Buena Vista, where on the 23d of February, 1847, a small

army of Americans repulsed a superior force of Mexicans.

It was until recently necessary for the tourist to make 250 miles of his journey between Saltillo and the City of Mexico by "diligence," but the gap in the railway accommodations is now closed.

The completion of the Mexican Central Railway brings the City of Mexico into direct communication with the United States. What a grand achievement! These two great Republics directly connected by this useful and long-needed commercial thoroughfare. The Mexican Central passes along the vast table lands of the Cordilleras, from which terraced slopes descend to the ocean on the east and west, beginning at El Paso, passing the old city of Chihuahua, capital of Chihuahua, and reaching by easy grades the capital of the Republic, the justly-famed City of Mexico, the objective point of all the great trunk lines.

Situated on the site of the ancient city of Tinochtitlan, nearly 7,500 feet above the sea level, in the basin of the ancient Lake Tezcuco, the City of Mexico holds her 240,000 inhabitants in comparative safety from the danger that often menaces the grand capitals of great countries. The city is surrounded by mountains; in the center is a grand square, from which all the principal streets radiate; the streets are broad, well-graded, well-paved, well-lighted, and clean. The houses are low in comparison with those of our cities, and are not imposing, with the exception of the cathedral in the Plaza Major.

The City of Mexico is a good point from which to make short tours. The scenery is in most part magnificent. Lofty mountains, broad table lands, and wide valleys, evoke in the breast of the beholder a deeper reverence for the Creator of such a wonderful domain.

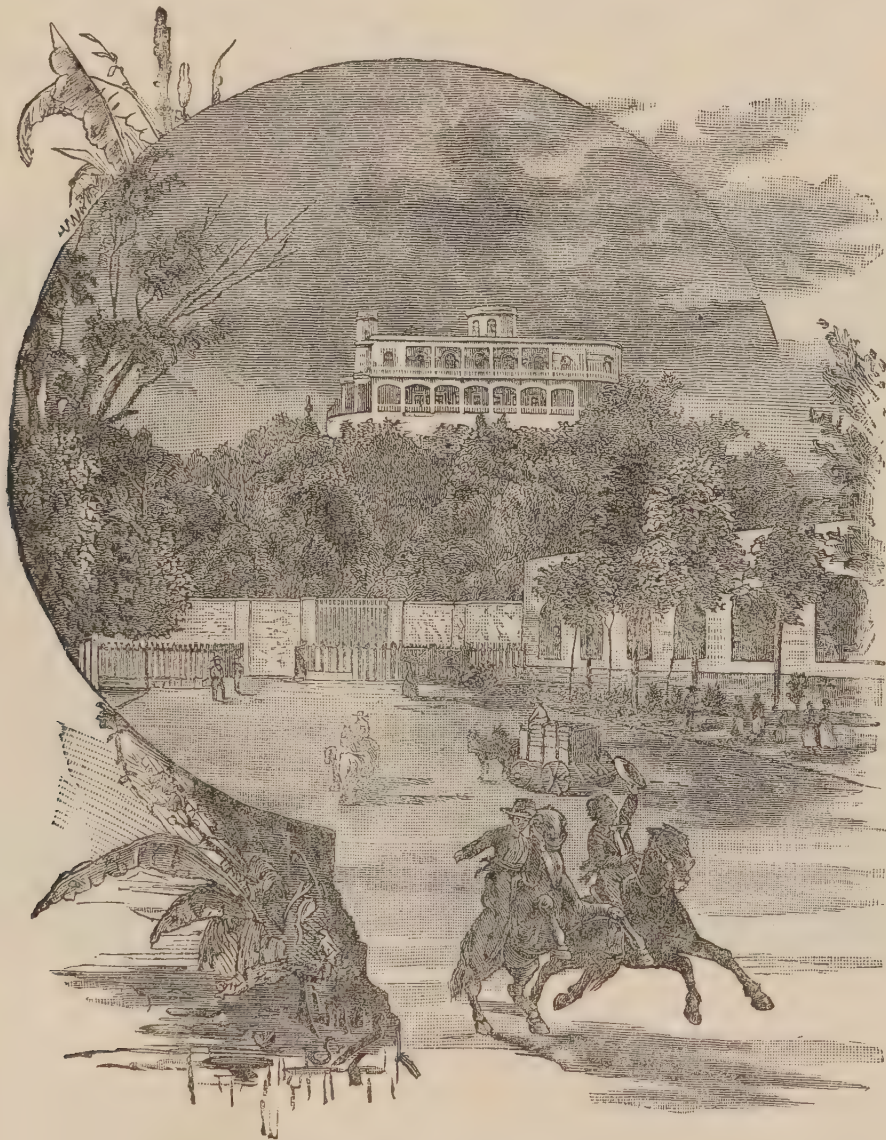
The curious, antiquated modes of life, the gaudy costumes, the lumbering diligences, the primitive methods of industry, the inexhaustible deposits of valuable minerals, the commercial woods,

and varied flora will keep the true tourist in an unflagging state of interest.

Chapultepec Castle, built on a mound of rock 200 feet high, lies two miles southwest of the city; this castle was captured by General Scott on the 12th of September, 1847; the capture of the city was effected on the following day.

Mexican mines that have been worked for centuries seem to be still as rich as

America can be successfully grown there. Standing on one of the cathedral towers and gazing over the green plains that surround the city and unite in the dim distance with mountains on every side, the eye instinctively stops its wanderings a few moments as it encounters a picturesque hill which rises abruptly from the grassy level about a league distant to the north. Nestled at its base



CASTLE OF CHAPULTEPEC.

at their first opening; with recent appliances for testing ore, the fact has been established that within her borders are to be found twenty-eight commercial minerals. The production of silver alone had reached the sum of \$4,200,000,000 in 1870. The soil products are unequalled in quality and variety by any country of the same area. Every fruit, vegetable, and cereal known to England and

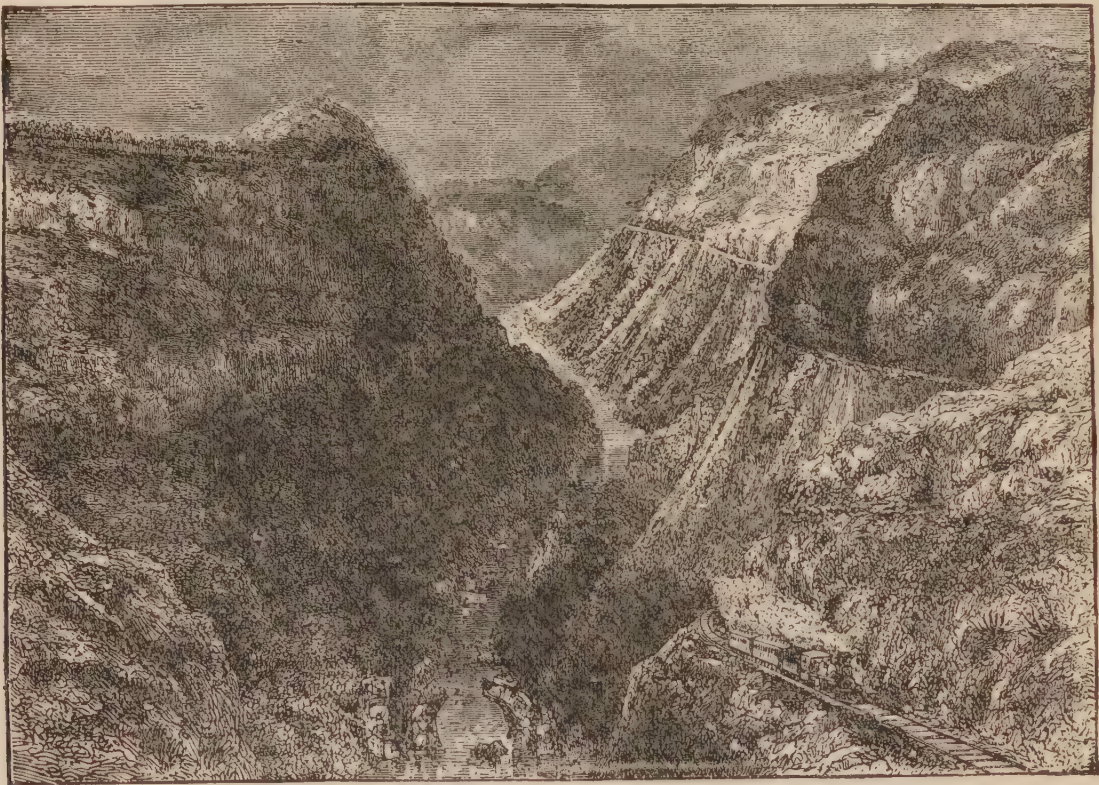
and partly surrounding it, is a small town whose lofty domes and white houses glisten in the sun. This is the interesting suburb of Guadalupe where the famous treaty of *Guadalupe Hidalgo* was signed February 2d, 1848, at the close of the war between the United States and Mexico. But the village is most remarkable for its cathedral and chapel.

Descending from the tower and taking a stroll through the tropical gardens of the Plaza, ere one is aware, the proper car has arrived. Entering the one whose sign-board bears the word "Guadalupe," one may arrive at that interesting town in a ride of half an hour. As the car glides rapidly over one of the old Aztec causeways and along a beautiful road shaded by the graceful *peru*, or pepper tree, a communicative passenger may relate the following interesting legend:

"Many years ago, a poor Indian named Juan Diego worked in the vicin-

give him an account of the vision, and make known to him her desire.

The Indian did as he was commanded, but the incredulous bishop ridiculed his statements. Determined to convince the bishop, the Virgin again appeared to Juan, and commanded him to gather flowers from the barren rocks of the hillside, and take them to the bishop. He accordingly plucked the most beautiful flowers from the rocks where they had grown instantaneously for the occasion, and filling his *zarape*—a kind of a shawl—he took them as a testimony to the unbelieving dignitary. He emptied them out



TAJO DE NOCHISTONGO.

ity of Guadalupe, and having occasion one day to cross over the hill just behind the town, he was startled at the sudden appearance of a heavenly vision. Before him he saw a bright rainbow, in the middle of which was a beautiful woman encompassed by a white cloud. She declared herself to be the mother of God, and told the Indian that she desired a temple built on that spot, and promised aid and blessings to all believers who sought her protection. She also commanded him to go to Zumarraga, who was at that time Bishop of Mexico, and

before the bishop, who suddenly fell on his knees at the sight of a beautiful image of the Virgin that miraculously appeared painted on the inside of the *zarape*. He was convinced, and at once set to work to comply with the divine command, and the cathedral is the result."

The visitor generally takes a look at a small chapel erected over a mineral spring that bubbles up near the foot of the hill. There is also a wonderful legend attached to this spot.

The skill and taste of the Mexicans in

the growth of flowers and shrubbery is seen to the best advantage in their cemetery just outside of the city.

A short ride out from the city on the Mexican Central brings the traveler to the famous *Tajo de Nochistongo*, one of the oldest and most celebrated pieces of engineering in this part of the Republic. This Tajo, or cut, was commenced in 1607, as a huge tunnel through the mountains, designed to divert the surplus waters of *Lake Zumpango*, the chief and most dreaded feeder of *Lake Texcoco*, the body which at that time surrounded the City of Mexico, and whose waters were often so augmented as to cause dangerous and destructive floods in the capital.

That the reader may better understand the reasons for this great work, it may be well to state that the Valley of Mexico, near the center and lowest point of which stands the capital, contains six lakes. Their aggregate area is about twenty-two square leagues, and *Texcoco*, a lake without an outlet, being the

lowest, received the overflow of the others, hence the frequent inundations of the city.

Lake Zumpango was the highest and most easily drained, besides being the basin into which flowed some of the largest streams of the valley, and it was thought if its waters could be diverted, evaporation would keep the rest of the lakes at a safe level. Accordingly 1,500 men were set to work, and within one year completed the tunnel, its total length being 21,650 feet.

Many years later it was converted into a canal which varies in depth from 30 to 160 feet, the width at the top being in proportion. Riding along the road built on the bank of the *Tajo*, the traveler involuntarily thinks of the millions of tons of rock and dirt, loosened by primitive tools and carried upon the backs of poor Indians up those steep banks. The magnitude of the undertaking, and the muscle that was expended here, must amaze the appreciative observer.

A. E.

DECEMBER.

THE NORTH.

Oh, drear December,
That cometh on apace,
With marrow-chills in every breath,
And browning leaves, and flower death,
And dread to those no longer young
And those with nerves by ails unstrung ;
Who shivering sit beside the hearth,
And view, through windows closed, gray-man-
tled earth
And sigh, " Oh, drear December,
With storm-gloomed face."

Oh, wild December—
That bringeth fiercest gales,
From out the white-robed, ice-bound land,
To strew with wrecks the South sea strand,

To hide with down from their wide wings
All bloom, and grass, and summer things;
To make the beasts of wold and field
Seek from that wrath a barring shield;

Oh, fierce, oh, wild December,
How cruel are thy gales !

Oh, loved December,
Our wee ones welcome thee,
When doors " go to " and shutters close
And house-pets on the hearth rug doze :
And ruddy flames, and coals that glow,
Send shadows dancing to and fro ;
And nuts are cracked with joke and laugh,
And sweet content the elders quaff,
And say, " Oh, loved December,
—Thy evens speed joyfully."

THE SOUTH.

Oh, bland December,
A welcome waits on thee,
For thou shalt sweet the woodland air
With orange-bloom and fruit so fair
And all the garden walks shall green

With lily blades in satin sheen;
And from their midst a host will raise
Of snowy bloom for Easter praise,
Welcome, oh, bland December.
Glad welcomes wait on thee

Oh, gay December,
 When song birds hither fly,
 From northward summer-nesting-place,
 And bring their late-fledged broods to grace
 Our hills and every woodland dell,

And mingle notes with those who dwell,
 Alway with us, throughout the year,
 Welcome, all singing pilgrims here.
 And welcome gay December,
 With milder sun and bluer sky.

ALL THE WORLD.

Oh, dear December,
 Remembrance thou dost wake
 Of him who once within a manger lay;
 Whose birth was herald of the joyful day
 When he would lift the waiting world
 From depths of sin that round it swirled.

Thou bringest with thy stormy reign
 That crown of days—that day of gain,
 Oh, dear December,
 Dearer for His sake.

MRS. A. ELMORE.

CONCERNING MARGARET McKENSIE AND THE OTHERS INTERESTED.

THERE is a certain book, quite out of fashion at the present day, which gives as answer to the first question contained in it this: "The chief end of man is to glorify God and enjoy him forever," and this statement has commonly been considered to include woman. But a writer in the September issue of the JOURNAL has access, apparently, to a later catechism, a sort of revised version, which reads something like this: "The chief end of woman is to adorn her person and secure a husband."

If it were possible, or even probable, that the majority of women would achieve this result, it might be worth while to make the effort; but since, from the large excess of women in some parts of our country, many of them must necessarily lead single lives, it seems like misdirected energy for all women to shape their lives to one goal. Look back a few years at the condition of these surplus women, once called, not inaptly, "the anxious and aimless." Having grown up in the orthodox belief that marriage was their proper lot, and having missed that lot, they earned scanty wages at the few trades open to them, or drifted about from relative to relative, always dependent, and rarely welcome, except where sickness or overwork prevailed. That order of things has passed away, never to return. Woman has begun to realize that before she was created wife and mother, she was created an individual soul, with in-

dividual opportunities and responsibilities, which may or may not include marriage; and since this is uncertain, she sets herself bravely to making the most of her individual life. If she finds herself possessed of any special talent, she knows that God makes no mistakes, and since he has given the talent, she is under obligation to use it, and if its use leads her into new and strange paths, that need not alarm her. Only let her be quite sure that it is a genuine talent, and not dissatisfaction with the old ways or a desire to be singular. But I submit that Margaret McKensie, pushing the carpenter's plane, or Ruth Carlyle, with her hand on the lever, are more attractive than the ideal of Mrs. Anderson's fancy, fresh from her mirror and with all her "maidenly arts" focussed on that possible husband.

When women fully realize that marriage is not an essential or an obligation, that, single, they can lead pleasant, useful lives and even hope for Heaven at last, then a higher order of marriage will obtain. Women will not marry because they have been trained to it, or because society expects it of them, or because they can not take care of themselves, but for far better reasons. The woman who is walking contentedly in some path of her own choosing, or perhaps, making, is not going to turn aside from it without a very genuine, unselfish affection for the man who woos her; so whether she says, yes, gladly,

or no, kindly, it will be well for all concerned. The husband of such a woman will never wake up to the knowledge that he was taken as a last resort. The writer once heard a very suggestive remark on this topic. A circle of relatives were discussing, with the amiable frankness peculiar to relatives, an absent and inefficient member of the clan, when the grandmother said, earnestly, "I do wish some good man would marry Jane, for she'll never be fit for anything else." Whether this view of the case was wholly fair to the "good man," I leave others to decide.

Mrs. Anderson deprecates the assumption by women of duties "belonging to another order of talents." Simply quoting Charles Sumner's grand utterance, "What right has one *mortal* to limit the sphere of another?" I would ask Mrs. Anderson how she separates these different orders of talents. On the ground of physical strength? Setting aside those engaged wholly in brain work, there yet remains a great army who expend little physical strength in their daily labor, as salesmen, draughtsmen, watchmakers, engravers, etc. On the ground of mental power? Compare the brain force required by truckmen, bartenders and street laborers with that daily exercised by the average school teacher. Perhaps it is on the ground of fitness; but that ground is hardly tenable while there exist men milliners, dress-makers and cooks. In fact the dividing lines seem more imaginary than real, and men, so far as they are at liberty to choose, generally select work suited to their individual powers; and that is all that women ask the privilege of doing.

As regards the value of their work it is an indisputable fact that women are doing satisfactorily many kinds of work once delegated to men, and the writer has personal knowledge of more than one important public office, where men have been superseded by women be-

cause of the greater efficiency and reliability of the latter.

But to quote again from Mrs. Anderson. "There is no study more important to feminine interests than the exhaustless resources of the toilet." We might go back to an older and higher authority who said, "Take no thought for your body what ye shall put on. Is not the body more than raiment?" "Therefore, take no thought, saying—wherewithal shall we be clothed." But the testimony of our own observation is enough. If, by "feminine interests," Mrs. Anderson means exciting envy in other women, or attracting the admiration of men, her statement may be true in a limited sense, but I doubt if the permanent affection of any intelligent man was ever secured by a display of fine toilettes. It seems to me that the highest feminine interests demand that a woman be something besides a clothes horse. They demand that she adorn her head and heart as well as her person, and that in a world where there is so much to do she make herself useful. Without drawing upon history for those women who, with little thought of their personal appearance, did God service in homes and hospitals and prisons, I would ask Mrs. Anderson to look about her and see if the most helpful wives, the wisest mothers and the most sympathetic neighbors are the women whose most important study is the toilet.

A self-respecting woman will see to it that she is neatly and suitably dressed for all occasions, without thinking it necessary to make a "study" of the subject, but is any sight more dreary than the woman who has lived to dress; whose "maidenly arts" have ceased to be alluring and become ridiculous, and whose natural charms require constant reinforcement?

But it is the "detestable reformers" upon whom the vials of wrath are poured out. What is a reformer? Worcester says, "Reformer, one who reforms;" and the same authority says,

“Reform, to change from worse to better; to amend; to restore; to reclaim.” Just what the PHRENOLOGICAL JOURNAL aims to do—and does. It fell to my lot, not long since, to attend a convention of these same detestable reformers, gathered from all parts of the country to discuss questions of far-reaching importance. There were old and young, married and single, rich and poor. I saw no “long haired men” or “short haired women,” but the heads looked very much like the heads of any audience, except that there was an unusually good brain development. The principal speaker was a gray-haired motherly woman, accompanied by her white-haired husband whom she yet fondly called “Dear.” This gathering of reformers behaved with apparent propriety, and their dress, far from “outraging decency,” compared very

favorably on that score with the average evening dress. They talked soberly and earnestly of ways to make the world more just and honest and helpful, and I was proud even to sit in the same hall with them, and came away with more enthusiasm for what is right and less for what is custom.

So go your way, Margaret McKensie, and if you really must be a carpenter, be a good one; and when I am richer you shall build me a house, which will stand firm and honest because you will put your conscience into it; and if nothing less than a locomotive will satisfy you, Ruth Carlyle, master it thoroughly, and then I will trust my life (and what, in Mrs. Anderson’s judgment, is dearer still, my trunks) to your keeping, with good hopes of arriving safely at my journey’s end.

HESTER STUART.

“A GIRL’S PROBLEM” AGAIN.

I WAS a little startled to find in the PHRENOLOGICAL for July, that some one whose personality I will try not to betray, had been stealing my private thunder, and making a statement of my small problem upon the public blackboard. Since seeing the September number, however, I am reconciled by the very kind efforts at solution of my difficulty, presented by Mrs. Anderson and Ruth Carlyle. The simple, serene, assured ciphering of the prospective engineer, it strikes me, comes very near clearing up the mental perplexities of any woman who feels herself called, or rather drawn to an unusual vocation. The first question of all is; have I the ability, with necessary training, to do the thing to which I aspire? And the next question is; have I the indomitable pluck and perseverance, the slow, every day purpose and courage that is essential to success in any peculiar undertaking?

If we are able to give an open, unequivocal assent to these inquiries,

which are the leading factors in our problem, why! we hold the key to the whole process of solution. To this conclusion I am helped by the simple, unaffected, flowerless argument of Ruth Carlyle who, in a way, seems to interpret my own unconscious and voiceless conception of duty regarding the work I wish to do. We don’t need to talk further about it. We know—Ruth Carlyle and I—that it will be our own fault, and not the fault of our own opponents, if we fail to accomplish what we undertake. We will let arguments rest, will we not? We can not well afford to spend our time and strength in labored efforts to convince people of truths they do not want to believe. We will stand or fall by our deeds.

Now, I am certainly grateful for the kindly interest taken in my welfare by Mrs. Charles Edward Anderson, and I know her advice is fine for girls who see things from a so-called feminine stand-point; but it seems to me that so much of her reasoning is based on

the conventional idea, rather than on the living principle of right, I can not make up my mind to entirely follow her guidance.

It may be true enough that marriage is the one beautiful possibility of a girl's future life and a lover the focus about which all her thoughts gather with an intensity of interest which nothing else could inspire; but, if this be really a fact, the less said about it the more agreeable will become the delightful subject of our inward contemplation. Some things are more sacred to us if not dragged into conspicuous notice and made a kind of stock in trade in the social amenities of life. It is our own individual affair, and nature will attend to that, my dear Mrs. Anderson.

Yet, if a girl doesn't believe that the sole aim and end of life is a lover and a husband it is no fault of hers or her instructors, since the idea is nearly always impressed upon her infantile mind by sly innuendoes and meaning glances that carry more force than the dead tones in which she is instructed in the moral law.

What does Mrs. Anderson think, I wonder, about a girl devoting her whole thought, giving her whole being, in fact, to preparation for the husband *in futuro*, while nothing at all is expected of him who is expected to take this angelic young woman to wife? If I might be so bold, I should like to ask the dear madam if she would not be kind enough to address a letter of advice and instruction to the prospective husbands of the waiting girls.

But I am running wide of the subject about which I really sat down to write. It appears to me a work of supererogation to counsel us girls to cultivate a love of dress, the study of which Mrs. Anderson makes so "important to feminine interests." Is there anything in the heavens above, the earth beneath, or in the waters under the earth, that racks our thoughts with such incessant appeals for consideration

and profound reflection? There is no escape from this insatiate God that perpetually demands the sacrifice of every good which we are weak enough to lay upon the idolatrous altar. Fashion is the Juggernaut to whose wheels we are bound, adoring and helpless victims, feeling that we can only break our chains by a defiance of ridicule that cuts our sensitive pride like a knife.

Why am I—Margaret McKensie—going about in this free and enlightened era with an execrable wire cage strapped to my back, except that I dare not, single-handed, stand up and let the folds of my gown follow the natural outline of my figure? Why am I "cribbed, cabined and confined" in a dress body of inelastic quality, molded by the skill of a *modiste*, with the closeness of an outer skin to my form, while a cumbersome weight of fussy, bunched drapery hampers the free movement of my limbs, except that I have not grace to meet the stare of astonishment if I should venture to appear in anything less atrocious and inartistic? Why do I bear aloft a hideous head-gear looking, in its stiff, standing uprightness of quills and wired ribbons, like the helmet of an Indian chief, save that I have not courage to wear on other occasions my simple, delightful old tennis and boating hat that gives me freedom from all thought of itself?

What is the use of talking about independence after such a confession as this? It is horrid to be called "odd," and to go around with what appears to our fashionable friends a malicious purpose to mortify them by a senseless eccentricity.

But if Mrs. Anderson would kindly set forth the possibility of a later liberty to dress according to our individual standards of use and beauty, what a strength and encouragement she would prove to us poor imitative, lamb-like creatures with a fatal tendency to plunge headlong over any break-neck wall that a belle leader pleases to take in the way.

Think what a development of the artistic quality of the feminine temperament might result from an absolute freedom to adjust our attire to our varying needs and tastes in the multiform relations and conditions of life! For the beauty of costume, it seems to me, lies in an infinite and fascinating variety adapted to the individual and the occasion, rather than in a rigid and monotonous conformity which in one era shows up the grand panorama of civilized womanhood revolving *en masse* in inflated skirts suggestive, certainly, of nothing in the image and likeness of God; and by a sudden collapse, reveals again a melancholy procession in clinging draperies distorted, perhaps, by a dorsal bunch of uniform size and hideousness in both the woman *petite* and magnific.

The Dress Reformers—Heaven bless them—are doing something toward instructing us in the principles of common sense, but their danger also consists in a rigid conformity to fashion of another sort which they strive to make the Procrustean measure of all women.

So far as this, however, their rule is a bold, strong, forward step. If we are to study to make ourselves enchanting, as Mrs. Anderson declares it our duty to do, through the art of dress, we want first of all a total emancipation from the bondage of an apparel which restricts the free exercise of our muscles, irritates and demoralizes our whole nervous system and eventually destroys our claim to any beauty worthy of the name in the estimation of the Prince we are urged to please. It seems to me, therefore, the brave example of a girl's counsellor like Mrs. Anderson, is needed to inaugurate and establish this reign of moral freedom, individual responsibility and independence in the matter of dress, which a girl with ambition to captivate a lover sees to be rather imperative, since the lover does not want her to do anything "unconventional," even to preserve her beauty. Does not Mrs. Ander-

son perceive that it is her duty to make common sense fashionable? Does she not see that she would assist me in the cultivation of those charms, which she urges me to make irresistible, if she would be kind enough to found a Fashion Magazine in which the models of styles, presented for me to copy, did not appear like heathenish monstrosities with wooden waists, apparently whittled down to a sharp point by an unskilful jack-knife and thrust into a pyramid of confounding and confounded convolutions, elegantly styled draperies, which we amiable creatures partially analyze, and complacently adjust to ourselves, going out on our daily parade as airily as though we had not each, in effect, a ten-pound cannon ball dragging tortuously from our waist.

For Margaret McKensie knoweth whereof she talks. Is she not sitting this moment with her wisp of hair (all her own, thank God) snatched up to the top of her head; her body cut in two by the villainous bands of "draperies" *a la mode*; her back exasperated by the pressure of the aforesaid wire extension, and her feet thrust in shallow French heeled slippers which give her when she rises that touchingly weak, helpless dependent gait appealing to the support of the man power?

Is she not charming?

MARGARET MCKENSIE.

HIGH CULTIVATION OF THE ORGAN OF MEMORY.—A couple of decades or so ago, I was spending some time in the old city of Brindisi, Italy, and in company there one evening I met a gentleman from Naples, who had, he told us, devoted fourteen years of his life to the cultivation of the faculty of memory, and so far as one could judge by his conversation, he had not done this to the prejudice of any other of his faculties. In a number of ways he exercised this faculty very much to our astonishment, but perhaps the following, which

I most distinctly remember, will illustrate as well as any other, the wonderful degree to which he had cultivated it. He would take any octavo or larger book in any language, and after reading a page once hand the book to one of the company with a request that this person should call for every third, fourth, fifth, or tenth word as he pleased, counting either forward or backward, and when this was done he would promptly and correctly call every such word. He did

this repeatedly. I regret that my memory does not enable me to give other equally as marvelous illustrations. He was also an adept at translating ciphers. Several gentlemen in the company were using ciphers which they submitted to him, and he, with only a few minutes study, translated every one of them correctly. The Italian government used to employ him to decipher the ciphers which were taken from the brigands.

G. A. R.

FACE TO FACE.

Idling not long ago upon the street
They named for him who was our country's
sire
In the brave town where wit and wisdom meet
Daily—for human freedom to conspire—

My vagrant glance within a bookstore spied
Two portraits—one of him whose mummied
clay,
With dark devices of rare spices dried,
Science identified the other day.

Rameses, Pharaoh—many names had he,
And many slaves toiled hard to rear his
tomb
Pyramidal 'twixt the Nile's fertility
And the sad, billowy desert's silvery gloom.

The other portrait was the homely face
Of him whose pen-stroke made a nation
free,
And raised to civic rank an alien race,
Dark heritors of a centuried slavery.

Lincoln and Pharaoh! Was it chance alone,
Or some design behind the shopman's
hand,
By which these lithographs were quaintly
thrown
Together, for a contest strangely grand?

For these two faces typify indeed
Two forces ever within the soul
Of man—that earthworm of material greed,
That glorious moth who dreams a starry
goal.

Nay more: these faces typify besides
The powers of progress and conservatism,
That make the nations rise and fall in tides
Forward and backward on time's dark
abysm.

But of the men themselves, what may we say,
Since Pentaur's verse on Luxor's pictured
wall
Sufficeth Ram'ses fame, and Lowell's lay
Of Lincoln's greatness hath so well said all—

Save this: One reared an altar unto fame,
Cemented by the sweat and blood of men.
The other to earth's highest office came
To widen all men's liberty—and then

To fall a victim to a madman's hate,
Just as his country rose again sublime,
Beautiful, though ensanguined! oh! strange
fate!

Oh, most pathetic mystery of all time!

H. W. Austin,—*The Century*.

HOW SHE SOLD THE SHOES.

“HOW did you come to buy those shoes?” asked one New York lady of another. “They are handsome, but not at all your usual style.” “Well, I’ve been pretending to everybody that I changed my mind about square toes, but I’ll confess to you that it was no such thing; I bought them because the saleswoman was clever enough to make

me do it.” “She must have been clever indeed.” “Yes. I don’t wonder you say so; I generally take pleasure in declaring my independence of the usual saleswoman’s dictum, but the woman who sold me these shoes was an artist in whose hands I was but a helpless infant. To begin with, she was a bright, cherry little thing, and struck me dumb

with amazement from the first by waiting on me as if it were a pleasure for her to do it. Then she brought out these shoes with the remark that she was so glad she had this one pair of this kind, for she knew they would fit me as they had been made to order, so much better than the regular stock. 'Of course,' she went on, 'you never could wear a cheap shoe; they never make cheap shoes with that high arched instep. Look at others? Oh, yes, certainly,' and she came back as pleasantly as possible with several pairs. But for them she had nothing in particular to say, and she had by this time, by her adroit flattery of my feet, inspired me with such respect for her judgment that I quite hung my decision on her approval. The flattery was of the most artistic kind. I surrendered and bought a shoe such as I never expected to wear. Of course, the fact is that they were ordered, and when they were thrown back on their hands they were too narrow to be generally salable. That queen of saleswomen knew that they were the ones above all others to get rid of, and willy nilly, so far as I was concerned, she sold them to me. But I flatter myself there are not three others in New York who could have done it; and I am willing to put up with a purchase I don't altogether like in consideration of having found an agreeable woman. It would pay proprietors to seek such people as she is and pay them well when found. I am so tired being bullied or patronized in shops that if I could get that girl to wait on me all over the place I'd go to the house she is in for every thing.



HOME IMPROVEMENT.—The following hints are certainly from a person of good judgment:

Never hang a picture so that it will be necessary to mount a step-ladder to view it. Hang it so that the center will be about five feet and a half from the floor,

a little below the line of vision of a person of average height.

Never select furniture whose "means of support" do not appear adequate. Chairs with spindle legs inclined too far inward or outward have an apparent tendency toward disruption, and are constant terrors to callers. Straight, substantial legs suggest strength and inspire confidence.

Never treat a hallway as though it were a dooryard and no part of the house proper. A hall should be inviting and hold out to the visitor a promise of the beauty of the inner rooms.

Never put a piece of furniture in a room merely because it is pretty and will fill up. Every article should have its real or apparent use; as a general thing the necessary pieces will occupy all the space that should be allotted to furniture.

Never permit a white mantel to disfigure an otherwise tasteful room. Cover it with a draped mantel board. White marble has a suggestion of cemeteries about it; it always looks crude in a drawing room, even in the form of the finest sculpture.

Never forget that an open fire and judiciously selected pictures will make any room cheerful.

Never put paper on the walls of a nursery, it is better either to paint or colcimine. There is always danger of poisoning in the coloring of the paper or of the paste becoming sour.

Never have a drawing room so filled with frail and delicate bric-a-brac that the least movement is fraught with danger of costly and wholesale breakage. This does not conduce to ease.

Never have dark carpet and walls in a room that is deficient in light. Only apartments open to outer light will stand gloomy tones in decoration.

We would add that dark staining or paint is not healthful to mind or body; and it is better for the comfort of the housekeeper, and for the pocket in the long run, to have stained or hardwood floors.



A QUEST IN ANTHROPOMETRY:

THE FULL-BLACK COMPARED WITH THE MULATTO.

AMONG many deductions from dimensions are nationality, race, family and abilities or propensities of the subject. And since the differentiation of mixed and pure or presumably pure races is quite as apparent as any, a comparison between them when an opportunity occurs for making one, is as satisfactory as any elementary study in that region.

Prof. B. Apthorp Gould's well-known statistics form a very accessible field of investigation. They concern people of our own country and of our own period (see note ¹). A somewhat earnest quest of the writer into that extensive territory has resulted in conclusions as meagre as they are tantalizing, when the object of search was to discover some means of judging if such a thing is possible, what are the conditions of vigor among men. In the midst of such queries as these—which, by the way, have yielded in every region the most gratifying results, if these results have been both unexpected and unwelcome, statistics have been compared extensively, which relate to two well-marked variations of men, as common and as apparent as those of the negro, called by way of distinction full black; and the colored man, called a mulatto. Distinctions between them are perhaps as well-marked as any,

since the color of each type appeals powerfully to the eye.

The negro blood by mixture with white, or in certain not distinguished cases with Indian blood (see note ²), produces a result which may be summarily treated in a quasi scientific manner as an exercise on the subject, not too formidable, while attractive from its marked characteristics.

This long preface shall serve its purpose of defining matters for further development.

If the mean height of about 2,000 full blacks and rather less than 900 mulattoes (see note ²) be 66.237 inches for full-blacks and 66.235 inches for mulattos, of "men in usual vigor," as deduced from Gould,—a variation of only two thousandths of an inch appears so small that the average stature of both may be assumed alike for comparison, and may be so assumed with safety.

The black has a larger *girth* of neck—.082 inches—than the mulatto; he is broader between the shoulders—.05 of an inch, while his "breadth of neck" and his distance (see note ³) between acromia is not so great. Contemplating these factors, we see that herein the black has a *larger* neck, circular measure, a broader back, full measure; while subtracting his "distance between

acromia" from "breadth of shoulders" gives him an excess of deltoid muscle, a result very interesting, showing a possible employment of lifting energy to a greater extent than the mulatto and, too, a greater build of muscle in this region from inheritance. In the black, furthermore, the "circumference around hips" is greater, while the "breadth of pelvis" is less; this "breadth of pelvis" representing the entire extent laterally of the pelvis measure. This would show a more decided *volume* of muscle in the black, in the pelvis region, but a less decided *breadth* over the muscles laterally. The "play of chest" is the value resulting from subtracting the girth of chest exhausted from the girth expanded, measurement being made laterally upon the nipples. The "play of chest" is less, while the "circumference of chest" is greater in the black. This value (a matter to which I have latterly been attracted on account of its extreme interest, people who talk upon the subject having occasionally given much too great credit to this dimension) is, I am assured, of far less significance than it is deemed to be, since several excellent men, after considerable gymnastic training and under favorable development, show precisely the same differentiation from an earlier measurement that the black shows in comparison with the mulatto (see note ⁴). The increase of the pectoral muscles is accompanied not only with no increase, but an actual diminution of "play of chest." This is seen in quite a number of good examples. The subject either loses the elasticity of the pectoral or substitutes "abdominal breathing" and consequent abdominal expansion for pectoral expansion. One case, of a man in very good condition, under the measurement of an accomplished trainer of men, showed actually no "play of chest" whatever, when comparing "natural" with "expanded chest."

The weight of the full-black—143.83

lbs.—is less than that of the mulatto, 145.76 1.69 lbs. The renal lifting strength is also less—323.51 lbs. to 348.90 lbs. How much can be attributed in either case to activity of nerve-force or to the use of this set of muscles more frequently, I do not know.

The pulsation of full blacks is found to be 74.02; and of mulattos, 76.97; that of full blacks being nearly three beats slower than of mulattos. The capacity of lungs for the black being reckoned 163.455 to the mulatto's capacity of lungs, 158.870, shows some excess in favor of full blacks in this dimension in men born in the slave states. A comparison of these values with soldiers and sailors, 72.082 deg., and students, 73.874 deg., shows marked variation.

Some random notes may be interesting in regard to cranial dimensions. The full black exhibits a little less circumference around forehead and occiput than the mulatto in the slave states, but almost exactly a uniform circumference in the free states. The facial angle for full black is 68.736 deg., and mulattos 69.104 deg.

In order to make this paper more intelligible to the hasty reader, I sum up some of my deductions.

1. The full-black is judged a better man than the mulatto in the nearer approach to normal pulsation; which is yet too rapid for the best indications. He approximates the most desirable figuration of men—the round chested—hence is a more compact man than the mulatto. His bony structure, taking what we have contemplated as a sign, is also more compact, as shown by a narrower bony structure at both shoulders and pelvis, at the same time having a thicker deltoid and a larger presumable girth in the pelvic regions. So far as the item "play of chest" is of value, we judge its narrow limit rather favorable to a vigorous pectoral region; since in good examples, a "play of chest" is apt to be less, proportionably, after development of pectoral abilities, than before.

The neck measurement is very significant. Some of the muscles having their origin near this locality represent the comparative vigor of the whole upper region of the body. So that a large neck is a pretty good indication, in the absence of other knowledge as we can have of the vigor of the muscles of the back, and if the *sterno-cleido mastoid* be considered an accessory muscle to the arm and chest muscles; also of the muscles of the anterior superior region. That is a large girth of neck indicates strong chest, arm and back muscles, so far as a conjecture can be made from this measurement.

2. The tendency of all such inquiries

¹ "Investigations in the Military and Anthropological statistics of American Soldiers. By Benjamin Apthorp Gould. 1869.

² 2,020 full blacks and 833 mulattos were examined.

as we make in this little quest is to answer them in this way: The black is the more vigorous, the mulatto the more animated and susceptible to unfavorable forces. And the value of such a conjecture, based upon such data as we have been able to assemble, consists in its application to one's own development and the training of others. If a certain figure is favorable to health and vigor, possibly the attainment of that figure approximately would secure such a habit of endurance and symmetry of form as would be conducive to desired results in health and usefulness. HENRY CLARK.

³ "Distance between acromia" means a lateral line between the acromia processes across the back.

⁴ That is, when commencing physical training, the man has a certain "play of chest," assumed in good men to be ample—from 1.25 to 1.50 inches, it may be; when after a period of training, although the girth of chest is greater—in some cases much greater than at first—the "play of chest" is less.

PENNY DINNERS IN ENGLAND.

IT is now some years since the idea first occurred to various persons interested in the young, that the scholars at many of the Board Schools in English towns were seriously underfed; that, in fact, the efforts of the teachers were in a number of cases but labor in vain, because, through habitual insufficiency of food, the children possessed scarcely any brain-power with which to respond to instruction. These schools, be it understood, are supposed to consist exclusively of the very poorest class of children, and the latter certainly are, as a rule, greatly in the majority. Investigations were made which proved the melancholy supposition to be only too correct; the report of one of the metropolitan inspectors, confirmed by others, being that in many London Board Schools, in bad times, fully one third of the children came breakfastless to school, and not more than one in four enjoyed the luxury of a regular mid-day meal.

This unhappy state of things is at-

tributable in most instances to one of three causes, viz:—unavoidable misfortune,—the bread-winner of a family being sick, dead, or out of work; carelessness,—as when the house or room is locked up when the parents leave for their daily labor in the morning, and the children, having been sent off to school, are supposed to play about in the dinner-hour, and wait for their next meal till they go home at night; or, perhaps, most frequently, the vice or thriftlessness of those to whom the little ones have to look for support.

Feeling that, benevolence aside, it is but common prudence to endeavor to raise a healthy and robust generation of coming men and women, and believing that something to this end might and ought to be done, a number of those who were most impressed with the weight of the above evil, formed themselves into a Council for promoting Self-supporting Penny Dinners, and invited teachers, managers, and all others who had prac-

tical experience in dealing with this class of children, to offer suggestions on the best method of coping with it.

In course of time, numerous experiments proved that dinners both satisfying and palatable, can be provided for children at an actual cost of less than one penny per head, being cooked and served, generally, in the nearest Sunday-school house which possesses the needful copper and stove. As specimens of the kind of food found most successful, and the average price, I may quote from the carefully prepared report of a country rector, concerning the dinners provided for 100 children in the National Schools in his parish. According to his experience 85 lbs. of beef pudding can be made for 122 pence; 67 lbs. of apple pudding for 94 pence; 40 lbs. of currant pudding for 86 pence; or 62 lbs. of materials for meat soup for 83 pence. Other dinners were boiled rice with jam, rhubarb or sugar; bread puddings, rhubarb puddings and suet puddings with treacle; a total of 1,300 hot dinners, averaging, before cooked, 8 ozs. of food for each child, having cost 1,107 pence. In some London schools a much smaller variety of dinners has been found successful, involving consequently less trouble to the cooks. Throughout the greater part of the year (the summer vacation only being excepted) a succession of hot boiled bacon and potatoes; cold boiled ditto, as a sandwich, supplemented by a slice of bread and jam; currant roley-poley; and pea-soup also followed by bread and jam, has been given regularly four days in the week and greatly appreciated. It is generally supposed that even the poorest children get a dinner on Sunday, and enough leavings of the same to satisfy them on Monday, and that Saturday being a holiday, many are able to earn pennies or food by rendering small services to neighbors or shop-keepers.

But what about the many little ones whose parents can not or will not afford even one penny for the child's mid-day meal? They have been a source of

much discussion on the part of the Dinner Council. There is always a danger, in distributing charity, of encouraging the very evils one wishes to suppress. Funds, however, were readily raised in subscriptions and donations from the benevolent for providing Free Dinner tickets for the absolutely destitute; but the greatest care and discrimination have been necessary in giving them away. The teachers themselves have usually greater facilities for judging of the actual condition of their charges than any one else; but it is advised that even they do not supply free dinners without entering full particulars of each case on a form provided for the purpose, and to be handed in to the Central Council every week. A lady who has been one of the most active and judicious workers in the movement from its commencement, noting the growing tendency of the poorest children to whine and beg for tickets, and fearing that these gratuitous meals were liable to prove pauperizing in their effects, started a center on her own account, at which all dinners were charged at $\frac{1}{2}$ d. each, and none given free, the fractional deficit on each meal being willingly made up by the kindness of friends. The scheme has worked admirably; about 170 children having been fed daily, and none have begged.

I could instance many interesting cases in which the regular feeding of previously half-starved children has produced the most remarkable and gratifying results; dull, apathetic scholars rapidly become intelligent and full of fun; pleasant looks dawn upon the countenances of the sullen and almost dehumanized; and impediments in speech so common among the underfed, gradually disappear. But I fear I have overstepped my allotted space, and will only add that the results, on the whole, of this English Penny Dinner system have been satisfactory and encouraging in the extreme.

JENNIE CHAPPELL.

London, England.

CONSUMPTION; PHTHISIS.—Concluded.

SYMP TOMS. The symptoms of this malady may show a wide variation in persons of different temperament, but in the outset there is much similarity, the *first* stage being indicated by a cough, short and dry in its nature, a result apparently of a slight irritation of the mucous membrane of the larynx, occurring, for the most part, on rising in the morning, and so slight as to be but little noticed. After a time it becomes more or less troublesome and is increased by exertion in speaking or exercise. A slight difficulty in breathing is then experienced, which ordinary muscular effort, especially going up stairs, increases. The patient feels languid, tires easily, and loses flesh. There are disorders of the stomach and bowels that are more or less like dyspepsia—and the ailment may be considered of that nature. Many persons, in fact, have been treated for consumption when the disease was dyspepsia. Headache is usually frequent, but not always, although a small, quick pulse indicates the presence of fever and debility.

Cough may be associated with many forms of disease, and is, as a rule, when the mucous membrane is in an irritable state from any cause. In most cases of organic disorders, aside from ailments that affect the breathing apparatus, it is a reflex nervous effect. It is a symptom always of some trouble that has either a direct or sympathetic relation to the lungs or air-passages, and therefore an effort of nature to remove some exciting condition, or to relieve the system of something that has set up an irritation. Cough, therefore, is not a *disease*, but a *symptom* of disease, and if this fact were understood by people the sale of the thousand "cough mixtures" that flood the country would be largely reduced.

Using the language of a careful writer in describing this disease. "After these symptoms have continued for a variable

period of several weeks, months, or even years, in consequence of a cold or some trivial exciting cause, the cough becomes more *habitual* and is particularly troublesome at night; the dyspepsia increases; there are shooting pains in the chest, expectoration takes place at first of a frothy mucous, which afterward becomes more viscid and opaque and is often mixed with small round particles of tubercular matter, with pus or with streaks of blood; or hemoptysis (bleeding from the lungs) occurs in a more marked form and to a greater extent."

The emaciation increases, there are periods of chilliness and shivering, followed by heat and flushings; the pulse quickens, running up as high as 120 beats in the minute, and a feverish excitement follows any effort, the countenance assuming a peculiar depressed and hollow expression, with its hectic flush at night. With the *second stage* there is a marked change in the appearance of the expectoration, owing to the softening of the tubercles; the matter ejected "is seen in detached portions of a round form with irregular indented edges, and floating in the thin transparent liquid secreted by the lining membrane of the air-passages."

In the *third stage* all the symptoms are aggravated. The cough is more frequent, the difficulty experienced in breathing greater; the chills and rigors with the intervals of fever and heat are more severe, and the morning perspiration more copious. The expectoration is now more profuse, of a yellow color and nauseous odor. Frequent looseness of the bowels may annoy the patient, the ankles swell toward night, and tend to become permanently swollen. The mouth and throat may become sore and acute pains be experienced in the chest and shoulders. All cases do not suffer alike, however; some, especially those of advanced life, wasting away gradually in the last stage until death ensues.

In children and in aged persons the disease may progress in a latent form, scarcely any fever or cough being manifested, until the substance of the lungs have become thoroughly pervaded with the destructive deposit, and then its development is followed in a short time by a fatal termination. In other cases the disease may be established by a very severe cold, or follow a fever, or an eruptive disease and declare itself abruptly; "the fever and prostration are sometimes so intense and the emaciation so rapid that the patient sinks in the course of a few months. This form of the complaint is known to the public as "galloping consumption."

Treatment. Merely having a persistent cough should not be an occasion for alarm lest one should have been attacked by phthisis, but he should be the subject of careful examination by a competent physician. The cough may be but an effect of indigestion or a slight bronchial trouble, yet that should be removed by proper attention. If there is reason for thinking that the lungs are affected, treatment should be at once instituted.

Consumption is a *constitutional* disease; this being understood, we can readily see that the means required to stem its progress and perhaps cure the patient are not to be found in drugs. As Dr. Beard frankly says, "*No specific has yet been found for this disease.*" Whatever charlatans may advertise, whatever those who profess and who really believe that they have been cured of consumption by some particular nostrum may assert, the people should understand that no *specific* has yet been found for this terrible disease." To nature, to hygienic procedures, to change of air, occupation and surroundings must the consumptive look for his remedies. Gargles, inhalations, expectorants may obtain temporary relief for the irritable membrane; aspirators and setons may evacuate pus cavities; soda, acids, strychnine, bismuth, etc., may

apparently produce improvement in the stomachic condition; cod-liver oil, pure or saponaceous, may add to the adipose secretion; the injection of sulphuretted gas or liquid may beguile patient and physician for a while with the thought that a panacea has been found for tubercle, but ere long the malady will declare itself in the aggravated symptoms as master of the situation.

Good air is the first requisite, out-of-door life and exposure to the sunshine, in an elevated region, will do most to prevent consumption, and so are the best elements in the treatment. Next is nutritious food, that which contributes to form healthful blood at the least expenditure of nervous strength in its digestion and assimilation. No excitants or artificial stimulants should be used to aggravate the feverishness and disturb the nerves. Life among the hills where some muscular effort is necessary in walking, is deemed by most authorities very helpful in the early stage. Jaccond in his work on "Pulmonary Phthisis," says: "Walking is not the only form of exercise which should be taken; if the character of the country is suitable, constant ascents, proportionate to the age and strength of the patient, should be prescribed. These ascents should be made with slow and measured steps, so as to occasion no fatigue to the respiratory organs, and there should be occasional rests on the way." And an American writer in the *New York Medical Journal*, says:

"The best inhalation apparatus, baths and medicaments, etc., are of but temporary value if no compensation is made for the loss of vitality and of muscular tone, especially that of the heart and vessels; if the blood-stasis in the glands and other organs does not yield to an increased flow of blood in the arteries and veins; if the thinned blood does not become thicker and more rich in albumen; if the accumulating carbonic acid is not expelled by a more plentiful supply of oxygen; if the fat deposited in the

body is not more rapidly oxidized; and if the kidneys are not made to act more efficiently. But all these effects are produced more certainly and more generally by mountain climbing than in any other way. Those who have had opportunities for observation must know that after several weeks spent in mountain excursions the condition of the patient is changed, and radically, for the better—mentally and physically.”

Moderate gymnastic exercises that have for their chief object the expansion of the chest may be practiced with benefit at home.

The locality chosen for the residence of the consumptive should be dry, and while going out in all weather may be practicable, every precaution should be taken against excesses of exposure, the body should be comfortably dressed and sharp changes of temperature avoided. A cold, dry climate is well adapted to those who have strength enough to maintain a good circulation and the normal bodily temperature, while for patients whose circulation is weak, especially women of this class, a warm and dry region is best. Elevation is important, and with a mild, equable temperature a hill

country is suitable to the great majority of consumptives, because it supplies the prime factor of prevention or cure, living in the open air.

Dr. Andrew Combe, who was himself a sufferer with pulmonary disease for many years, gives strong testimony with reference to the value of out-of-door exercise. Two or three winters that were spent by him in the south of Europe were largely devoted to horse-back riding with great benefit.

Regular bathing is an important part of the treatment, almost any form from the simple towel application to the full tub-bath being an aid to tone up the system. It is to be enjoined that in the beginning care should be taken against shock; then warm water is appropriate and the temperature may be gradually reduced until a bath with cold water can be borne comfortably. The morning is the time for this, and it should be followed by brisk rubbing with a dry towel and the hand. The shower bath is advised by some physicians. Its tonic effect is indisputable, but in most cases I think the shock is too severe, and in all cases great care should be exercised in administering it.

H. S. D.

SALICYLIC ACID IN FOOD.

THE following extract from a letter written to the Brooklyn, N. Y., Health department by a chemist, discloses a fact in food adulteration that the community should heed. After alluding to the use of this disinfecting agent in beer, he says:

I have for some time been aware of this use of salicylic acid, as well as its addition to wines, canned fruits, cider, milk, and other goods for the purpose of preserving them from fermentation. In fact, this acid is coming into such general use in foods that it is becoming an important sanitary question as to its effect upon health when used in small quantities for a long time. There can be no doubt that in large quantities it acts

very injuriously both upon the digestive processes and the kidneys. In its elimination the kidneys not rarely become acutely congested or even inflamed, giving rise to acute Bright's disease. Although a potent remedy in the treatment of acute rheumatism, it is not suitable for long administration, owing to the above injurious action. It requires the addition of from eight to ten grains of free salicylic acid to one gallon of beer in order to prevent the growth of ferments. If bicarbonate of soda has also been added the quantity of acid necessary to be added is much more. Three grains have recently been found to each pint of wine. Assuming that the smallest effective proportion of the acid is used,

viz., ten grains to the gallon, there are many persons in this city who take no inconsiderable amount of this drug every day of their adult lives. The salicylic acid of the market is prepared from carbolic acid, and is frequently contaminated with a small proportion of this very poisonous agent. This is a well-known fact to all pharmacists. The sanitary question, then, rests upon the question of the action of small and long-continued doses of salicylic acid, possibly contaminated with carbolic acid.

Upon this point I think it necessary to quote here but one of many authorities. In 1881 and again in 1883, upon the recommendation of the Central Committee of Hygiene, the French Government prohibited the sale of articles of food containing salicylic acid. As protests were made against this legislation, and as these protests had led to contradictory judicial decisions, the above committee requested the opinion of the French Academy of Medicine. A commission created by that body of savants has

recently made a report (*Bulletin de l'Acad. de Med.*, Paris, 1886, T. XVI., pp. 583 *et seq.*), from which the following is an extract: "While in persons of good health the prolonged use of such small quantities of salicylic acid as would be contained in articles of food or drink treated with this substance is probably not injurious to health, it may nevertheless produce very decided disorders of health in certain persons, and especially in the aged and in those who have a tendency to diseased kidneys or dyspepsia. Salicylic acid and its salts are eliminated by the kidneys. They tend somewhat to check the action of the digestive ferments contained in the saliva, enteric juice, and pancreatic fluid, and hence to delay digestion; hence, it is easy to understand that they may aggravate digestive or renal troubles." The report closes with the recommendation that the addition of salicylic acid or its compounds, even in small amounts, to articles of food or drink shall be absolutely prohibited by law.

MALARIAL EXPOSURE AND PREVENTION.

IN all old fever stricken countries the inhabitants have learned, by long experience, what must be done to avoid malarial attacks, and they have formed habits which have become almost intuitive. In Rome and generally in Italy the Italians avoid walking in the sun; they have a saying which runs thus: "Only Englishmen and dogs walk in the sun." A difference from thirty to fifty degrees occurs in the middle of the day between sun and shade. Going out at an early hour in the morning before eating, or continuing from an early breakfast until a late dinner without a lunch, is condemned where there is any possible exposure. In Rome, Americans are much more subject to fever than the English, as the former trust to their habit of an ample breakfast to carry them through to a six

o'clock dinner, whereas, an Englishman will have his lunch at midday.

The fever germs taken into an empty stomach, just at night-fall find a road open to enter into the circulation. It has been too well established to be questioned that fever germs may be taken into the stomach of a healthy person with impunity, because when proper food has been taken at regular times the digestive process will kill the germs. In Central America the natives do not eat fruit after ten in the morning; up to that time the condition of the stomach is at its best for the proper digestion of fruit. Generally speaking, uncooked food is difficult of digestion, and the passage out of the stomach of a portion not digested may take with it some of the malarial poison.

Breathing through the nose is im-

portant with respect to fever prevention. All air upon the land has more or less impurities and germ life. If the purpose of the nose and its membranes is not to strain and collect these poisons, then certainly the Creator might have omitted the nose and allowed us to breathe through the mouth. Taking air into the lungs, partly through the mouth, only tends to make the nose an unhealthy organ, a very breeding place for disease. A very liberal use of handkerchiefs may be suggested as an effectual aid to keep poisons out of the system. Parents should teach children to breathe through the nose; at night it should be seen that they are so placed that the tendency is to natural breathing.

Another important point with respect to fevers is the prevention of colds; this, after the consideration of good general health, is of the utmost importance. When the pores of the skin are closed malarial poisons are likely to accumulate rapidly in the system. The effort of nature to throw off this accumulation is the well-known ague or "shakes," followed by fever and the sweating. A return of this takes place when there is again a large increase of the malarial poison, making thus the periodical returns.

One of the surest means to prevent colds is the wearing of wool next to the

body. The English Government made experiments running through a series of years, clothing soldiers and sailors in the several fabrics, cotton, linen and woolen, the results of these investigations was to clothe their soldiers and sailors in wool the year round. The wearing of wool garments has received quite an impetus in Germany through the influence of a man who has gone so far as to insist that no one article on the body should be of other material, he maintaining that wool only can carry off and dissipate the poisonous effluences of the body, while other materials retain them.

It is believed that the malaria germ rises on the heavy air at night and falls again at or after sunrise. It is found that no malarial fever exists in the region of sulphur works. The Abyssinians, when preparing to hunt the elephant in malarious districts, thoroughly fumigate themselves with sulphur. Sulphurous acid has been adopted by the health board of the general government as the disinfectant to be used in case of an invasion by the cholera germ. In any district where malaria is localized it would seem to be a very simple and effective way to kill the fever germs by burning the sulphur just at nightfall. Sulphur is so very inexpensive that it would cost only a few dollars to try the experiment.

A MEDICO-LEGAL COMPOUND.—A client received a note from his lawyer which he was unable to decipher. On his way to his office he met a friend, at the door of a drug store. The friend, after vainly attempting to read the note, suggested that they step inside and hand it to the druggist without comment. The druggist, after studying it in silence for a few minutes, stepped behind the prescription case, and in a short time returned with a bottle of medicine, duly labeled and bearing directions. When the gentleman saw his lawyer, he was informed that the note

was a notice for him to call at his office between three and four the following day. The *Medical Age* well says, with reference to this incident, that "It is a pretty difficult matter to 'stick' the regulation druggist."

VITATIVENESS.

To me the thought of death is terrible,
Having such hold on life. To thee it is not
So much even as the lifting of a latch;
Only a step into the open air
Out of a tent already luminous
With light that shines through its transparent walls!

LONGFELLOW.

Child-Culture.

ASSOCIATION.

THE influence of climate upon vegetation, and even the inhabitants of our earth, is evident. Climatic influences acting through long periods of time have had much to do with the great diversity existing among the various races. We see how the hot, humid climate of the torrid zone dwarfs the intellect and enfeebles the physical powers of its people ; we are told of the stunted growth of the inhabitants of the frigid zones, and can mark how the mean between the extremes, the rightly tempered climate of our own portion of the earth, has conduced to produce strength both of mind and body.

Realizing these facts, a great German writer has said, "The persons by whom one is surrounded are his climate," a very striking expression of the fact that association is a powerful factor in the formation of mind and character.

Tennyson expresses the thought in another way. "We are a part of what we meet" he says, meaning that all with which we may be associated does in some way leave its impress and become a part of us.

A still stronger expression and one which treats also of final results, is the words of the wise man when he says, "A companion of fools shall be destroyed." Doubtless this was an exclamation wrung from him when in sadness of heart he had witnessed the ruin occasioned by vicious association.

Everywhere we find this fact to be intuitively recognized that as we are so we associate, and as we associate so we are.

There is something curious in regard to this law of association. It has its analogy in the physical world. Take two elements perfectly harmless in themselves, put them together and they become the powerful explosive, or the deadly poison. So it is sometimes in human association. The school teacher is obliged to plan in regard to teaching his pupils, for it is often the case that those who if widely separated will be the most studious and tractable of his pupils, will, if closely associated, bid defiance to law and order.

"There's so many of them, what mischief one can't think of another can," we have heard worried mothers declare. And one cynical observer of human nature has gone so far as to say, "If you see three boys together whip them ; for they either have done, are doing, or are about to do some mischief."

And it is true that in aggregation of farces, in concerted action, there is strength, whether it be for good or evil. The resultant in such cases being nearly always greater than the sum of the forces if acting alone.

There is one phase of this subject of association to which we would like to call special attention. This is the what seems to me mistaken notion that association which would prove ruinous to the daughters of the family will not injure the sons.

"You can not go there, it is no place for a girl," is often said in regard to places of amusement ; or, "He, or she, is not a suitable friend for a young lady," while no exception is taken in

regard to such companionship for her brothers. This is wrong. Of the two characters, the masculine and feminine, one is as easily sullied as the other. And as in the one the passions are stronger and not so readily controlled as in the other, so should even greater safeguards be thrown about it. To sully the purity of the feminine character has been likened to soiling snow which can not again be whitened. But it is equally as hopeless a task to restore that manhood that has fallen from its high estate—it is even more hopeless. I know this view is not held among young people generally. The “wild oats” sown by the young men is lightly spoken of and society gladly welcomes the returning prodigal; but the repentant Magdalens are not treated in this way, and this very laxity in regard to masculine delinquencies is no doubt the cause of much profligacy.

The pledge of the White Shield in its promise of the recognition of a common standard of morals for men and women, will prove a wonderful corrective in time of this popular society error. But true reform in this respect must begin in the family, and a code of morals there instituted which shall be as binding upon the sons as the daughters. But from the wider, freer life led by the boys of the family, they are necessarily brought more in contact with whatever elements in society may surround their homes. One may do much for his own family in raising the tone of the community.

A laboring man who had given a large sum, apparently beyond his means, for

the establishment of a high school in his vicinity, said in explanation, “I can afford to give that much to procure good association for my children.” This was the highest philosophy.

But labor carefully as one may, there will be perils daily in association for his children. The tares will be sown amongst the wheat. What, then, shall be done? The farmer who finds a certain field overrun with weeds does not go to work to pull them all up. That would be an impossible task. No, he plants some other crop that will kill them out. If one does not wish his children to read bad books, let him cultivate in them a love for good ones. If they are not to engage in the mischief which the old adage says Satan always finds for idle hands, they should be furnished congenial employment.

Let the boys and girls have their hobbies. Let them be encouraged in them whether they be poultry raising, tinkering with tools, painting or gardening, as they choose.

No matter about the addled eggs, or the cut fingers, or soiled garments which may be the only visible results of such employment. Let their observing faculties be cultivated so that they may find in plants and trees and animals, in nature, animate and inanimate, satisfying companionship. If a child can be made to care more for a good book than for a game of cards with some idle playmate, if he can only have some interesting subject for research, for the employment of his faculties, he has a strong safeguard against the evils of association.

M. A. J. K.

TRoublesome CHILDREN.

THE remarks under the above heading which appeared in the department of Child-Culture, remind me of the wedding wine at Cana. The best of the wine came at the last of that memorable feast. Now the writer gives us a

very poor specimen of baby-treatment at the beginning, and ends with the finer material.

Everybody knows that babydom is peopled with innocence, and colored by its surroundings. A child is correctly

likened to a glass reflecting whatever passes before it. If gentle discipline has been enforced, the little fellow will retain the impress even in a railroad car. To rap another person's infant on the knuckles in public, is a rudeness of which few would like to be guilty. It seems that this mother had a variety of luggage beside a healthy, active baby. Her husband was not with her; oh, how natural it was for her thoughts to fly to him in her weariness. Perhaps, had he been there, he could have easily quieted that little restless creature, that chafed under close confinement, and did not know enough to know what it really wanted, perhaps an old shoe would have been as attractive as the fan, had such an article been within sight of those tired eyes. Babies are always at their worst when away from home. I really think they get home-sick. My experience has been that from the moment the child left home it was uneasy until it returned to its own cradle, then it was as quiet as a lamb. There are plenty of this sort of grown up babies. I know a gentleman who can not be coaxed to visit any one's house. If it should so happen that he is surprised in one, he immediately becomes as restless as a fluttering leaf in autumn, until the walls of his own house inclose him round. We do not approve of unkind treatment when it can be avoided, and especially to a babe.

The fact that that child had not been taught "hands off," and "no admittance," was not the little one's fault. Who could be unkind to a tired and overworked mother? I can fancy the passenger under discussion making her preparations for a journey. How busy she was that morning, oh, how many things there were to think of, husband must be left with things comfortable for him, and then after baby was dressed she was so afraid he would soil his frock before they started, then there were the basket and bag to pack, and really it may be that in her excitement

she forgot to provide his rattle or toy to amuse him on that tedious journey.

If the *rap* had been given the mother it would have put the thing in better shape, for she could have rapped back, but *baby could not defend itself!* It is probable this woman had exhausted all the resources incident to the situation for quieting the child; now she was in a dilemma. This fellow-traveler could have aided that embarrassed mother by laying aside her fan, or if she had a cake to have given it. Perhaps the best thing she could have done by way of a good deed all around would have been to caught the babe's eye and snook her head in a firm, yet quiet, gentle way, as much as to say: "No, no, you can not have it." I think that passenger would have felt happier in the review of her journey if she had by some stratagem quieted the restless little one, thus scattering seeds of kindness. There is fear of overdoing the matter in child-training, in advice and practice; often the true secret of proper development consists in letting them alone.

The little mind opens like the bud, slowly. God does not send a flood tide, but gently dropping showers. I have seen so much of this telling what to do, and what not to do, that between mother and nurse-maid the child has no correct idea what course is right; it is overtaxed. Like our school-girl's grammar. The pupil studies it, learns it, recites it, and yet she does not know what it means, nor how she is to fit it in daily practice. So with child-teaching, they are overloaded and sometimes need to be let alone, and to think for themselves, instead of thinking and breathing almost through the white-capped nurse-maid, and mamma's orders.

The writer of this article was once riding in a horse-car, and sat opposite a sweet baby creature. It was cloaked, not hooded, but capped. The babe felt uneasy with that stiff bordered thing around its tender face--they are horrid things, I only wish the mothers had to

wear one every time the child does. This little pet would put up its hand to counteract, I presume, the scratchy feeling against its cheek. Every time it did instinctively, of course, or even touch the starched border, the mother would slap that innocent hand. The child's look of astonishment at the cruel deed,

embraced more wisdom than the whole countenance of that young and silly mother. The babe (it was about 12 months old) sat on the white-aproned lap of the nurse, and I wondered what that child must have thought, or whether it thought at all. These scenes, it is to be hoped, do not often occur.

MISTAKES IN EDUCATION.

SADLY must it be said that a great mistake is made in educating children. They are sent to school to study spelling, reading, writing, arithmetic, etc., but allowed to grow up in ignorance as to the laws controlling their health and happiness.

The consideration of this error has of late induced five states of the Union, namely, Vermont, Michigan, New Hampshire, New York, and Rhode Island, to pass a law requiring the teaching "in all schools supported by public money, or under state control," of "Physiology and Hygiene, with special reference to the effect upon the human system of alcohol and other narcotics." "By it not only the effects of narcotics on the human system, but the truths concerning ventilation, cleanliness and food, the laws of heredity and much more are taught."

Undoubtedly other states will soon do likewise.

Does a child know the full value of a knowledge of mathematics before it has obtained it? No. Just so with Physiology. Many walk this world blind in regard to the laws of life and happiness; they do not understand how to live so as to avoid the avoidable causes of disease, which are many, and when taken sick, charge our Heavenly Father as being the cause of their disease, for some mysterious purpose, regardless of any violations on their part, of the laws which He has instituted from the beginning to preserve our health and happiness.

Surely we are free moral agents, a truth of which we too often take advan-

tage; set up for ourselves and do as we please, and that too often contrary to God's will, forgetting that God asks us to get true wisdom, which is a knowledge of the unseen, the true and the spiritual, and with wisdom to get understanding of that which is seen, natural science, physiology, etc.

Solomon says: "Wisdom, true wisdom is the principal thing; therefore get wisdom; and with all thy getting get understanding," which will enable us to see the follies of life and avoid them.

The curse of sickness and sorrow inflicted upon man is not without cause. The Bible says: "The curse causeless shall not come."

Man dies ere his allotted time to live has expired, not because the Lord takes without cause, but that he takes according to the divine laws of nature, which laws he has instituted from the beginning to control the universe and all contained therein. "Blessed be the name of the Lord."

Many are the cries and lamentations from the suffering world on account of parents not having done their duty in teaching their children even the simplest laws of health and happiness.

Can man drink when he pleases, what he pleases, and as much as pleases without receiving harm therefrom? Certainly not.

Can man eat when he pleases, what he pleases, and as much as he pleases and keep well? The Physiologist says No! for he realizes that digestion can only be performed according to the laws which control it. Surely it is very im-

portant to know how to live right, so as to avoid disease and misery.

Parents teach your children in the days of their youth how to keep the temple purified in which the soul has its earthly home. Make them a present of "The Man Wonderful in the House Beautiful." (Pub. by Fowler, Wells & Co., N. Y.) Read and study it with your children. It will do you good as well as your children.

"The book is more wonderful than a fairy tale, more intensely interesting than a romance, and more replete with valuable truths than any book of the present day. . . . To pick up the book and read a chapter at random, is to excite an interest that can not be satisfied until every chapter has been read, and the critic will not then be content, for he will wish to reread in order to admire the beauty and simplicity of the style, as well as the ingenuity with which the different subjects are handled, and the skill

with which the important points are made prominent." A few dollars spent for books on health, may cause your children to prove a blessing to the world and to yourself, whereas, without such knowledge, life is a lottery, and sad experience too often the result.

Too often, oh, too often,
The child so bright and fair,
Sinks 'neath a blow of sorrow,
Or struggles in despair.

'Tis true, I say, dear mother,
Your child you need to teach
While young in years, and happy,
And yet within your reach.

To you that life so precious
May cling for words of truth,
Reject it not dear mother,
The time to learn is youth.

So sweet, like buds of roses
The souls of many bloom,
But 'ere life fairly opens,
Disease doth blight and doom.

EDWIN E. MARTIN.

MIMETIC DISPOSITION OF CHILDREN.

CHILDHOOD in all its various phases is a matter of interest to parents, for a predisposition to certain traits of character when unduly engaged may lead to forbidden paths where thorns and thistles abound, instead of the peaceful and delicate flowers which shed their fragrance on the legitimate evolutions of mind in the aggregate. Among the faculties of early development is that of mimicry. This in itself considered is right and adds pleasure to the budding mind, but where there is a disposition to carry it to an extreme it detracts from the proper development of other organs and thus presents a jug handled education out of all harmony with true intellectual culture and thus exposing to evils which a true development of all the faculties would serve to obviate. The early use of this faculty in children is very striking and often amusing. We are a cripple with one short leg pieced out to facilitate locomotion and we have

to walk with a stout cane. We have noticed that our anomalous condition attracts the attention of children and not unfrequently, casting our eye over our shoulder we have seen very ludicrous attempts to imitate our gait. How often mothers must have observed their young children after having visitors with peculiarities mimicking them and often with striking success. Scarcely a family who attends church or lectures, when the children get home but will find a four year old darling mounted on a chair or the kitchen table and mimicking the speaker to the best of his ability in voice and gesture. Little children are often sent to Sunday school, but their knowledge of the lessons learned with all the explanations given are of no more use to them than the cackle of a goose, but they do learn to imitate their teachers. Children of five or six years old are quick to learn from example but are not far enough advanced to take in

the meaning of what they are taught or be benefited by the precepts so carefully given. A lecturer had the habit when enforcing an argument of bringing the forefinger of the right hand down into the palm of the left. A little five-year-old when he got home amused the other children by a well-copied action of the lecturer. We well remember our own little boys after seeing us pull teeth would come to us and want to try their hand on our teeth. They would go through all the maneuvers even to running the turn keys into our mouth, and all with an earnestness of an actual operator. This is all well but the child has certain passions blind in themselves that must be handled with care or we may mourn the consequences of our neglect. The passion of anger must be mainly ruled by loving kindness. If you exhibit passion when the child is angered, you must surely add oil to the flame, increase the evil in the child to such a degree that after teaching fails to eradicate or hold within reasonable bounds. Lying and thieving are easily taught and many a child has been made such by honest parents whose duties are perfunctorily performed. Selfishness beyond its true merits is so generally taught by example that the world is overcrowded with it, and its effects are to-day blighting the peace and happiness of millions. Children can not be too cautiously handled, but evils do accumulate until their lessons are heeded, and then there is an upheaving of the masses, and the lessons of evil culminate in good. It is of no earthly use to attempt to cram into children what they can not understand; it only irritates the child and weakens the desire for the kind of knowledge you wish him to have. As the worst or blind faculties are the first in the order of cultivation, it becomes a matter of vast importance to the child and community to know how to guide the child mind so that it may escape the rocks of evil thickly strewn in its path. All the passions

when held within their natural limits are necessary to full development of character—the trouble is in their getting out of their proper bounds before the moral faculties are sufficiently educated to control them. An intimate knowledge of physiology and the constitution of mind in the aggregate are essential to parents in the education and training of young children. The fact is, education as to time, manner and matters of fact is not generally on a very solid basis. There is ample room for improvement and the present stage of civilization loudly calls for a reformation in the practical duties of life. Hot tears are rolling down the pallid cheeks of theology, politics and law, bemoaning the extreme sinfulness of man, but selfishness with his golden god receives nearly all the worship, and will, till the down-trodden break the chains that bind, and accept the wisdom taught by the great educator, evil. Pharaoh was crushed because he refused the lessons taught. Jerusalem though warned by Jesus Christ that not one stone should remain upon another, was infidel to the last, and sank in the mire of her sins. The worldly people of the United States take no heed to the lessons ringing in their ears, and if permitted will sink the nation as deep as the fabled Atlantis.

R. K. SLOSSON.

—*Western Rural.*

THE BALANCE SHEET.—In every business house in this land, in all lands in truth, the "balance sheet" is being prepared for the year 1887. Anxious men are bending over columns of figures and striving to make the sheet give a fair showing. Mothers, too, are looking over the events of the year and making up a mental balance sheet as to their success in the training of their little ones. Sincerely we hope there will be more smiles than tears over the showing, and courage will be given to begin the coming year with higher resolves and stronger faith.

A. F.

THAT TROUBLESOME CHILD.

THE correspondence evoked by the article on "Troublesome Children," which appeared in the Child-Culture department of the October Journal, is interesting; one of the letters is given place in this number.

Possibly it may not lack instruction to parents to pursue this particular case a little further. It was one of the sour fruits resulting from an ill-assorted marriage, and it is on and before the reception of the marriage ring, and the exchange of marriage vows, that Child-culture really begins.

The father who accompanied the wife and child, and was only temporarily absent from the room, was about 60 years old, tall, slender, poorly-nourished, of delicate feature, refined, well-bred, and a confirmed invalid. The mother, a vigorous, angular, coarse-featured, vulgar creature, who had, doubtless as a servant, bestowed such charities of care on the miserable old bachelor, as had secured her a husband, home and baby, himself a nurse and heir.

The over-indulgence of the proud father, and the equally injudicious humoring of the ignorant mother, had made the child a tyrant, he was literally to be refused in nothing. His toys were there in abundance, his clothing, probably ordered by his father, was soft, loose, and neat, with wraps for exigencies. A drink of water being offered the child, he grasped the glass and threw it crashing to the floor where it spattered the muslin gown of a rustic bride and the polished boots of the hour-old husband; a bottle of milk barely escaped the same fate through the expert catching of the mother, who had doubtless daily experience of the same class. The mother's ring was necessary to the baby's happiness, and she practiced a deceit which would not long deceive those sharp eyes, pulling at the ring, while the thumb of the ring-wearing hand held it firmly in place.

Then came the fan episode and the rap on the knuckles, which was not vindictively given, but rather permitted to occur in the vibrations of the fan, it was with astonishment that the "roar" of the little savage was burdened, not with pain from the blow.

The child was a subject of commiseration. It is a cruelty, beyond our computation as to extent, that a child should be left so undisciplined, to inflict upon the world his bad conduct, and reap in himself the penalties that by right belong to his parents. For the world will not pander to such creatures; there is no more senseless humoring after childhood's doors are shut and manhood's estate is entered upon.

It is rarely the case that a tired, fretful child in the arms of a weary mother or nurse, fails to attract kindly attentions from one whose magnetism is not all out of tune. I have seen a baby laugh through its tears because of a droll look on a neighbor's face, and one, when all efforts of the tired mother failed, contentedly cut an offending tooth on a bit of leather which had broken from a commercial traveler's suspenders.

I well remember a rainy day when I was a prisoner in the sittingroom, and "as cross as two sticks," my mother ill, the baby asleep, and all toys were distasteful.

I looked out of the window at the passing stage coach, my ill-humor as apparent to the passers by as to myself. A good-natured young man in the coach, smiled, nodded, and winked at me in such contagious fashion that I smiled back at the stranger and forgot the rain and gloom in wondering why he did it, and resolving to marry just such "a nice man" when I was old enough.

The world would be brighter to little people and big, if we were not so chary of kind looks, and helpful hands, and so regardful of conventionalities.

MRS. A. ELMORE.

SCOLDING.

IT is a fact beyond dispute, that scolding never does any good, and usually makes matters worse than they were before. It serves to call forth opposing evils in the one berated, which in turn brings out still more hard words from the first speaker, until what should have been but a passing cloud, develops into a disastrous storm.

Webster says that a scold is "A rude, clamorous, foul-mouthed woman." Perhaps we have not realized that it meant quite as much as this, when we allowed ourselves to express what we felt in words neither wise nor elegant.

Is there excuse for tired, overworked mothers who never know the luxury of rest? There are such, and without doubt many of them, who never, for one moment, year in and year out, know what it is to feel rested. This may not be owing entirely to the amount of work they have to perform, though that of course was the original cause, but, having once gotten into such a state, it would require a very long holiday to restore the body to its normal condition. Is it any wonder that we often feel irritable, and that the overwrought nerves protest against every incivility?

Perhaps husband and children are not always as considerate of our feelings as they ought to be, and to remind them of neglected duty, we scold. They are re-

mindful, forcibly enough, no doubt, but are they more thoughtful next time? And does this way of doing increase their love for us? On the contrary, it will in time eradicate every particle of natural affection. Constant fretting renders us very unlovely, and in order to be loved we must be lovable.

As dreadful as this result may be, it is not all that may be expected from such a course long indulged in. The children soon learn to take on the same tone, and scolding and fault-finding soon fall as naturally from their pretty lips, as did before the innocent prattle of childhood. They will, of course, grow up a copy of their scolding mothers, and thus our every-day words become as far-reaching as Eternity. We can not think too much of this matter, or be too seriously impressed with its importance. It is of vital import, not only to our own happiness, but to that of every member of the family.

But is it possible with these tired bodies and strained nerves, to possess at all times an equable temper and a mild demeanor? I know of but one way.

"Thou canst walk and weary not,
If in my strength thou trustest well."
That is what He means when He says,
"My grace is sufficient for thee."

MRS. SUSIE E. KENNEDY.

A BOY OF HIS WORD.

You may sing of the heroes of yore,
You may speak of the deeds they have
done,
Of the foes they have slain by the score,
Of the glorious battles they've won;
You may seek to eternize their fame,
And it may be with goodly success;
But it is not the warrior's name
That my heart and my spirit would bless.
Though oft at their mention my soul hath
been stirred,
Yet dearer to me is the boy of his word.

You may speak of the great ones of earth,
Of prelates, of princes, and kings;
I doubt not there's something of worth
In the bosom of all human things;
But dearer to me than the whole
Pageantry, splendor, and pride,
Is the boy with a frank, honest soul,
Who never his word hath belied.
Yes, prized above all that this earth can
afford,
Though lowly and poor, is the boy of his
word.

NOTES IN SCIENCE AND INDUSTRY.

Counterfeit Jewels.—Artificial precious stones have become an important article of trade. The products of some of the shops would almost deceive an expert, but the test of hardness is still infallible. The beautiful "French paste," from which imitation diamonds are made, is a kind of glass with a mixture of oxide of lead. The more of the latter the brighter the stone, but also the softer, and this is a serious defect. The imitation stones are now so perfectly made, and are so satisfactory to those who are not very particular, that their influence begins to be felt in the market for real stones. By careful selection of the ingredients, and skill and manipulation, the luster, color, fire, and water of the choicest stones are to the eyes of the layman fully reproduced. There are a few delicacies of color that cannot be perfectly given, for they depend on some undiscoverable peculiarities of molecular arrangement, and not on chemical composition; but the persons who buy the stones know nothing of that. Yet Sidot, a French chemist, has nearly reproduced these peculiarities, including the dichroism of the sapphire, with a composition of which the base is phosphate of lime. Two other French chemists, Fremy and Fell, have produced rubies and sapphires having the same composition with the genuine stones and nearly equal hardness.—*Popular Science Monthly*.

Culture of the Plum.—In the nursery we select the most fertile soil, and manure it freely for plums, a correspondent of *Fruit Grower* writes. Should we neglect this the trees would grow so slowly they would be crooked and unmarketable. But with rich soil and good culture the plum pushes up rapidly, often five to seven feet in one season, making marketable trees the second year from bud, the yearling tree being headed back to the point where the head is desired, usually about four feet from the ground. In the plum orchard we find the same necessity for rich soil and good

culture. I would rather neglect any other tree than the plum, but none should be neglected. With good soil and culture the plum grows vigorously, the bark is smooth and bright and usually healthy. With neglect the trunks are rough and gnarly, sprouts shoot out from the trunks, the tops are uneven, with dead branches, and often affected with black knot, but still fruitful. I do not often find plum trees with any life left that do not attempt to give a harvest. Lowish lands will produce plums if well drained. No fruit should be planted on low, wet, underdrained land. Soil inclined to clay is the best, and uplands as well or better than low lands. I am not in favor of low lands for fruits. Yet they often give excellent results.

Delicacy of the Sense of Smell in Man.—The extreme delicacy of the sense of smell in man has been shown by a series of interesting experiments. In an empty room of some two hundred and thirty cubic metres capacity and tightly closed, a small quantity of the particular substance to be detected was thoroughly mixed with the air, and the observer then admitted. Among the different substances which were tested in this manner, it was found that the very smallest amount recognizable was 0.1 of a milligram of mercaptan. This quantity diffused through the room sufficed to make its distinctive character appreciable in the small volume of air coming in contact with the nerves of the nose, from which it was estimated that the 1-460,000,000 part of a milligram of this substance was recognizable—an infinitesimal quantity, passing conception, but which science declares to be a fact.

Popular Medicine!—According to *The National Druggist* these are some of the requests made of druggists:

Send me some of your essence to put people to sleep with when they cut their fingers off.

I want something to take tobacco out of my mouth.

Send me a baby's top to a nursing bottle.

An ounce of the smelling stuff that goes through your brain.

Something for a sore baby's eyes.

Enough ipecac to throw up a girl four years old.

Enough anise seed to take the twist out of a dose of senna.

Plaster for a man kilt with stitches.

Something for a caustic woman.

Something to knock a cold out of an old woman.

Something for a woman with a bad cough and can not cough.

Something. I forgot the name, but it is for a cure for a swelled woman's foot.

For a man with a dry spit on him.

For a woman whose appetite is loose on her.

The Academy of Anthropology.

—At the November meeting of the N. Y. Academy of Anthropology the newly elected President, Dr. Edward C. Mann, addressed those present on the objects and work of anthropologists and reviewed in a very interesting manner what is being done by them in different parts of the world, especially in France, where the sciences relating specially to man appear to have received most attention. This inaugural was followed by a paper on the "Relation of Alcoholic Inebriety to Diseases of the Mind and Nervous system," in which Dr. Mann takes the strongest ground against the use of alcoholic beverages on account of their effects upon the brain and nerve structures generally. Reasoning from both the physiological effect *per se* of alcohol and from the *data* of cerebral pathology, as indicated by the reports of physicians to the insane, Dr. Mann decries the drinking habits of society as conducive to the most marked phenomena of physical and moral degeneration, and urges the establishment by law of measures for the repression of the traffic in liquors, and the organization of asylums or retreats for the restraint and care of inebriates. He believes that inebriety is a disease of a determinate character, and although its effect is subversive of the mental economy yet under proper treatment its victim may

be to a large degree redeemed and cured. Dr. Mann takes a more cheerful view of this subject than most observers as concerns the probability of a pronounced inebriate overcoming his destructive habit, and recovering much of his previous mental power and health. Remarks were made on the points offered by the President by Professors Thoring and Drayton, after which the meeting adjourned.

Norway is supposed to be a country of intelligent people, but it certainly has great need to husband its scanty resources. While it is not in great danger of invasion from any quarter, yet the annual budget shows that the expenditure on the army is three times as great as that on the schools of the country. We might suggest a problem in arithmetic for the Norwegians: If 20,000 men are army enough for 50,000,000 people how many are needed by a country which has less than two millions?

What We Know About Meteors.

—1. The luminous meteor tracks are in the upper part of the earth's atmosphere. Few, if any, appear at a height greater than 100 miles and few are seen below a height thirty miles from the earth's surface, except in rare cases where stones and irons fall to the ground. All these meteor tracks are caused by bodies which come into the air from without.

2. The velocities of the meteors in the air are comparable with that of the earth in its orbit about the sun. It is not easy to determine the exact values of these velocities, yet they may be roughly stated as from 50 to 250 times the velocity of sound in the air, or of a cannon ball.

3. It is a necessary consequence of these velocities that the meteors move about the sun, and not about the earth as the controlling body.

4. There are four comets related to four periodic star showers that come on the dates April 27, August 10, November 14, and November 27. The meteoroids which have given us any one of these star showers constitute a group, each individual of which moves in a path which is like that of the corresponding comet. The bodies are, however, now too far from one another to influence appreciably each other's motions.

5. The ordinary shooting stars in their appearance and phenomena do not differ essentially from the individuals in star showers.

6. The meteorites of different falls differ from one another in their chemical composition, in their mineral forms, and in their tenacity. Yet through all these differences they have peculiar common properties which distinguish them entirely from all terrestrial rocks.

7. The most delicate researches have failed to detect any trace of organic life in meteorites.

These propositions have practically universal acceptance among scientific men.—*Nature*.

Talleyrand's Brain.—Victor Hugo tells this story concerning its fate: "The doctors embalmed the corpse. After the manner of the ancient Egyptians, they removed the bowels and brains. After having transformed Prince Talleyrand into a mummy and having nailed it up in a coffin, lined with white satin, they went away, leaving on the table that brain which had thought so much, inspired so many men, constructed so many ambitious edifices, managed two revolutions, deceived twenty kings, and held the world in check. The doctors gone, the servant entered and saw what they had left. Not knowing that it was wanted, and regarding it as a loathsome object, he gathered it together and *threw it into the sewer* in front of the house."

Volapuk, the New International Language.—There have been efforts to introduce a tongue which could be universally used in diplomacy, commerce and social life, but they were unsuccessful. In France, Holland, Germany, Denmark and Italy "Volapuk, the World's Speech," or "The Language of the World," has made considerable progress by means of periodicals which are devoted to it. It is a vowel language and easily learned, and was invented by John Martin Schleyer, a poet and linguist and pastor of a small parish on the German side of Lake Constance. The new language is intended to enable any one to communicate his ideas to another in any part of the globe. It is not designed to supersede English or the other numerous

tongues. No vowel language can take precedence of the English, or as it now really is, the American language. That with its hard consonants and few soft vowels is the all-conquering tongue of Christendom and heathendom. Examples of Volapuk are given which show that as a vowelized tongue it would be just the thing for lovers who can not speak the affections of the heart in gutturals. The German would doubtless be set aside for the song-like words of Volapuk. The name is not very musical. It is a word of three syllables having the accent on the last syllable, and that lends a key to the new language, for all of its words are accented on the last syllable, which shows that to be the end. This prevents a jumble of words which make sentences run into each other as railroad cars telescope. Volapuk is a compound word from *vol*, world, and *puk*, speech, connected by the vowel *a*, and to show its vowel character here are examples: "*Kim esedom peni?*"—Who has sent the letter? "*Flen esedom omi.*"—A friend has sent it. "*Kima flen esedom omi?*"—Whose friend has sent it? "*Flen tidela,*"—The teacher's friend. The inventor of the new international tongue may live to see it used by hundreds of thousands of persons who emigrate to foreign lands. It is already spoken and written by a considerable number of people in Germany, and as its introduction into the United States is now to be made it will soon be seen whether it will live or die.—*Ex.*

Spider's Web as a Barometer.

—*Nature* (French) says: One of the simplest, most efficient of barometers is a spider's web. When there is a prospect of rain or wind, the spider shortens the filaments from which its web is suspended and leaves things in this state as long as the weather is variable. If the insect elongates its threads, it is a sign of fine, calm weather, the duration of which may be judged of by the length to which the threads are let out. If the spider remains inactive, it is a sign of rain, but if it keep at work during a rain, the latter will soon be followed by fine weather. Other observations have taught that the spider makes changes in its web every twenty-four hours, if such changes are made just before sunset, the night will be clear and beautiful.



FOWLER & WELLS COMPANY, *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

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December, 1887.

WHAT HAS HE DONE?

THE world judges men by what they do or have done. When one comes before its tribunal the question is, "What has he done?" If the man is rich, it may for a time show some degree of obsequiousness, but soon there is a demand for more than a large bank account or a roll of bonds. "How has the wealth been obtained?" In this age of shrewd, sharp bargaining, of cunning manipulations in politics, finances and affairs corporate, the sudden acquirement of a fortune rarely invites the approval of the conscientious observer, and the possessor of millions may be mighty on Change but be despised by plain, honest men.

We will not say that the standard of judgment to which a man's caliber is referred is a faulty one in itself, but its application does not always secure a strictly just conclusion as regards the subject. There are many whose accomplishments are by no means commensurate with their capabilities. Not that they have been negligent or careless, but they have lacked opportunity. The

endowments of intellect and sentiment and morality in them are naturally excellent; they have studied for the development and culture of these endowments as they could, perhaps, with what means were at command, but they have been so restricted and even oppressed by circumstances that to act and work in lines that would secure results out of the commonplace has been impossible. These men usually have a small circle of friends who esteem them for their qualities of head and heart, and defer to them on occasion when there is need for their counsel and aid. Their worth is in this way recognized although the rewards for the occasional service rendered may not be of that substantial kind that lifts a man into a place of ease and independence.

The question, "What has he done?" it must be admitted has more relation to one's material accomplishment than to his moral. If a great invention has opened some new field of industrial enterprise, or some discovery in physics has led to a novel and important application of scientific principles, the inventor or discoverer, when he becomes known, may receive the world's plaudits. There is a substantial outcome of such performances than the average statistician can judge, and it is entered on the inventory of the world's gains; it represents, therefore, a solid increment. On the other hand the moral performance, unless it be of imperial influence, exciting the wonder of a whole community and leading to some important development of a practical nature in civil or social affairs, is not determinable by the methods of the accountant, and can be understood by

those only who are near enough to the doer to gather his spirit and motive.

The world knows and applauds the man whose intelligence and vigor pushed to a successful conclusion the project of laying an electric telegraph between Europe and America. But the world knows little and has yet to applaud the man whose genius and patience demonstrated the possibility of training feeble and imbecile minds to degrees of usefulness. The name of Cyrus W. Field rises promptly to the lips when one speaks of a "cablegram," but who out of the small home circle that have reason to be thankful for benefits received through his instrumentality remembers the name of James B. Richards?

The city of New Orleans recently did a thing that reflects credit upon its citizens in erecting a beautiful memorial of a woman who had spent most of her life in earnest charitable work among the poor and unfortunate. Such a testimonial does more to raise moral sentiment among the masses than all the proud statues of men decorated with the trophies of battle, and we welcome it as a sign of a growing regard for moral work and worth.

We know that people must live more by their moral nature than by their intellectual and physical to estimate moral accomplishments at anything near their true value. Yet, until they do so live, it can not be expected that society will have risen to that degree of mental evolution that will make it possible to answer the question, "What has he done?" on the solid ground of essential merit.

HYGIENIC MEDICINE.

THE undertaking of Dr. Dodd and others appears to have reached that point of success, in itself very encouraging, of making a start. The St. Louis Hygienic College is now under way, and there is but little doubt that if the management continues to exhibit the enterprise that characterized the steps taken toward organization, the new College will expand into an important feature of St. Louis' progress. This institution is, of course, an outcome of liberal thought and independence in medicine, and in many respects to be looked upon as a necessity of the time, but we can not help thinking that if our large colleges supported a well equipped Department of Hygiene the necessity for an independent organization would not have appeared.

How a medical school, whatever its name, can be regarded complete without having professorships of hygienic and sanitary science, we can not understand, such is the pronounced importance of these subjects to public and private interests. Every physician should be expected to possess a good knowledge of the principles that should govern in the preparation and use of food both for the well and the sick; should understand the best methods of ventilation and sewage disposal, and also know something with regard to healthful dress and the proper building and arrangement of dwellings.

No demonstration is required to show in this place that it is at least, as important to *prevent* disease as to cure it, and prevention belongs to the department of Hygiene. Those leading minds in modern medicine, Gross, Flint, Rich-

ardson, Fothergill, have spoken and speak strongly on the future triumphs of the physician as a guardian of the public health, not by his mixtures or his powders, but by his knowledge of sanitary law and the methods of hygiene. If the established medical schools do not make a prominent feature of hygiene in their curriculum, ere long, we think that new institutions will be founded in which sanitary science will be the leading study. Enlightened sentiment will demand them.



PUBLIC HEALTH IMPROVEMENT.

AT a Congress of Sanitarians, held in England, it was stated by the President of the body that since 1870 the death rate of Great Britain had diminished to the extent of one-seventh, and he claimed that this certainly very marked improvement in the public health was due to sanitary legislation. This statement had reference to the effect of legislation on the habits of the masses as regards cleanliness and order, and was true to a degree, but by no means covered the ground. Sanitation has to do with the surroundings of man, the disposal of the waste and refuse products of his domestic and industrial life, the prevention of public and private abuses, that have a morbid influence on the air that people must breathe, in the water they must drink, and in the food they must eat. The field of sanitation is a most important one, but its sphere is external and material.

There were other influences at work in British society that did much toward the remarkable diminution of the death rate, and they possess an equal import-

ance with sanitation. Their work was of a moral or mental kind. For instance, there are the great temperance movements, organized in connection with the churches, with the medical profession and independently. There are the extensive systems of public and private benevolence that provide for the sick and destitute, for women and children, for the care of those who are injured by accidents. There is the growing knowledge of the physiology of living, that is ministered to by extensively circulated tracts and periodicals on the nature of food, and the relation of personal habits to health. Physiologists and observers of eminence, like Fothergill, Galton, Maudsley and Richardson, have published for the general public books and pamphlets giving valuable advice on these topics. Thus a higher state of public intelligence has been acquired, a mental elevation that carries with it a greater power to resist morbid influences.

By maintaining these mental prophylactics in connection with the physical measures of sanitation, the health of the masses will continue to improve and the next fifteen years show a decided advance on the high ratio of the past improvement. We need in this country as well organized efforts in behalf of public moral health as Great Britain possesses. Our people are awaking more and more to the necessity of a national system of material sanitation, and much has been done in many States to offset and suppress diseases of the germ class. They have but to understand the importance of associating moral effort with sanitary measures to secure results most beneficent.

A CLOSING WORD.

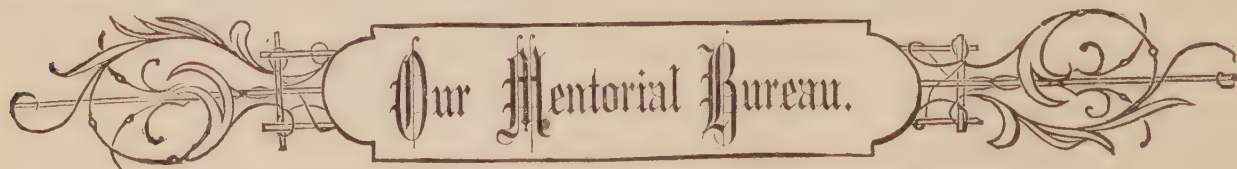
THIS number closes volume 85 of the PHRENOLOGICAL. There may be some readers who have decided to dispense with its further visits for one reason or another, and there may be some who are hesitating about a renewal of their subscription. To these the editor would say a few words in the kindest of feeling.

If you think, friends, that it is a wise course, that you will not be losers personally in any way by ceasing to scan the pages of this magazine, if you think that your wife or children receive no benefit from it, no instruction on their intellectual sides, no culture on their moral sides; if your candid judgment places it among those unnecessary and ephemeral things that may interest for a moment and afterward are easily forgotten, then you are right in withholding your name and money for the next year's numbers.

But if your intelligence says to your considerate ear, I have gathered some things of real value last year from the

PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH; if your conjugal feeling says, my wife has enjoyed the reading of a good many pieces, and drawn now and then a bit of useful information from it; if your parental sentiment says, my children seem to be impressed and benefited by some of the things they have seen in it; if your social feelings say, my friends who have taken it up have appeared to catch here and there a thought that has helped them to understand the world better; if your practical judgment says, there have been some economical points in it that have had a certain bearing upon my own relations, although how valuable they have proved is hard to tell—then what you should do in the matter needs no suggestion of ours. Your name and money will be in our hands at an early day.

Do not act hastily, readers; such action may keep two dollars in your pocket—to be spent on something that will bring no substantial good. This has never been said of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. *Be brief.* People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. *Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.*

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor personally will receive his early attention if this is done.

CAN A HUSBAND OPEN HIS WIFE'S LETTERS?—According to the United States Postal Laws and the United States Revised Statutes, neither a husband nor a wife has any right to open the other's letters, and the one that does it may be prosecuted under Section 3,892 of the Revised Statutes for so doing. No State law can override a law of the United States.

DISCOVERER OF THE PHRENOLOGICAL SYSTEM.—J. T. P.—To Francis Joseph Gall, a German, born in Swabia in 1757, died in Paris 1828, the honor of discovering this system is due. He first announced it by public lectures in Vienna, where he was a practicing physician, about 1797. After 1807 he lived in Paris and filled out a distinguished career. The experience of Phrenology has been that of all great discoveries in science and morals, the opposition of the prejudiced and skeptical, with more or less of bitter persecution when its practical applications were found subversive of old views and systems. People do not generally disbelieve it. The large sale of books on the topics related to it; the many persons who practice Phrenology as a calling, show that there is a wide and growing interest in the community at large, a realization of the uses of phrenological counsel and instruction. We are directly in the way to know that the press is more favorable than hostile to it, and the recent publications of the Fowler & Wells Company, as a rule, are cordially approved by the great majority of book reviewers.

WHITE BREAD VS. BROWN.—SUB.—The item you inclose declares an error. The physician who makes the statement that the white loaf of bread “contains a much larger

percentage of phosphates and gluten than the Graham loaf or unbolted flour,” is not acquainted with the composition of wheat, and the distribution of the elements. Possibly he may be familiar with the common cheat of “Graham bread,” sold by the average city baker, a “bread” that is made of poor white flour into which a few flakes of bran is mixed, and a trifle of molasses is added to give the desired color. Such bread, we own, is not as nutritious as that made of new-process wheat flour of good quality. Dr. Bellows in his “Philosophy of Eating” says: “It is estimated that ninety-five per cent. of bread used in Boston is made of wheat-flour, out of which has been taken, by the process of grinding and bolting, all but about five per cent. of its muscle-making and life-supporting elements, so that fifteen barrels are required to furnish as many of these elements as one barrel of unbolted wheat meal. . . . In making superfine flour, twenty-five per cent. of the meal goes off in the siftings of which fifteen per cent. is of the nitrates and phosphates, and ten per cent. of the carbonates.” What is left then in the nice white flour that people so much admire is carbonaceous matter, mostly starch. See Cleveland, Pavy and other writers on dietetics.

THE SOUL.—R. A. H.—If by the “Soul” you mean the spiritual part of human nature, we frankly answer that we do not know. The philosophers of ages have been trying their best to unravel the mystery, but in spite of their immense tomes of discussion, they have not reached a definite and satisfactory conclusion, as you will see by consulting any standard work on intellectual philosophy or moral science. One of the students at the recent session of the Institute, Mr. N. N. Riddell, after listening to the writer's lecture on the relation of moral faculties to the physical powers, wrote out the following opinion, which is about as near to the truth as any of us usually get when we attempt to explain the essence of the psychical attributes:

Soul is the eternal, all-pervading force from God himself.

Life.—Soul acting in connection with organized matter.

Mind.—That which is evolved from an

organized brain by the action of soul on the organization.

These three qualities, *soul*, *life*, and *mind*, constitute the immaterial *man*. One of the objects of this combination of soul with matter, is to develop and (so far as possible) perfect an individuality, an *ego*. If the organization becomes unbalanced in any of the several parts, its manifestations become abnormal or diseased, and, if this disturbance be in the brain, improper manifestations of mind are the result, because brain is the organ through which the life principle manifests mind. And when the disturbance be sufficient to destroy the connection or combination between the vital spark or soul and the organized body, the phenomena known as life ceases; and as mind is but the result of the co-working of soul with an organized brain, it follows that when they cease action, mind, as it is known here, ceases also. Now, this individuality, this *ego*, that has been developed by and through the action of soul in connection with the highly organized brain, when released from its material habitation, severed from matter, still retains its individuality, and this released individuality I call *spirit*.

DEVELOPMENT OF THE MORAL REGION.—J. E. P. C.—In estimating the size and influence of the moral organism, it is necessary to take into account not only the elevation above the opening of the ear, but also its mass, which involves superficial length and breadth, and the details of fulness at particular organic centers. It is possible that great relative development of the basilar organs may impart an apparent elevation to the top head, but careful observation of the situation of the ear in respect to the plane of the eyebrows, and the parietal eminences will give safe data as to the comparative size of the two regions. As a rule, when the opening of the ear is much below a plane formed on the line drawn from the outer angle of the brows to the occipital spine, the temporal lobes are large, and if the head is broad, certainly they are very influential in the character. So a head that rises *centrally* high above such a line, and is broad and full in the upper section, contains large moral organs, and if their quality is good, and the person's culture fair, their influence must be important upon his disposition and intellec-

tual traits. The cases you have supposed are a little obscure from the *data* given, but we should expect a higher moral expression in No. 2.



Communications are invited on any topic of interest; the writer's personal views and facts from his experience bearing on our subjects being preferred.

The Placable and the Implacable.—Every one has noticed the difference in people concerning their resentments. There are few or none who do not grow angry at times under provocation, or as the result of injury, and many do so very frequently on small provocations. This is not the question—but why are some people's resentments so lasting, and why in others are they only transient? To what organs, or combination of mental faculties, is this difference due? With some, an injury is never forgotten; their anger is lasting. In fact, the lapse of time serves rather to increase the sense of injury, or the desire for revenge. In many barbarous tribes this spirit is seen, and in none is it more characteristic than in the American Indian. We all know the stories of how he avenges his wrongs; how patiently he will watch for and pursue his foe, braving privation, hunger, peril and death to gratify his revenge—and all in retaliation for some slight, inflicted perhaps years before. In his case we can see the workings of large Destructiveness, Secretiveness, Approbativeness, and Eventuality, acting perhaps along with Conscientiousness and Firmness—the latter giving a persistent sense of the wrong done to himself. So in history, we read of eminent generals, potentates and commanders who subordinated everything else for a series of years in order to gratify revenge. The old and enduring feuds among the clans of the Scotch Highlanders are examples of this spirit, as well as the family feuds in many of our Southern States, which are entailed from generation to generation, causing so much rancor and bloodshed. The Germans, in a more quiet way, are noted for holding grudges and spites for a long time. Perhaps the ancient Jews were much given to this

infirmity, as the sacred writers frequently inveigh against this spirit.

Of course, all this is directly opposed to Christian precepts. The Scriptural command, is not that we should never be angry, so much as to not to let the sun go down on our wrath. Now, two persons may be equally given to temper, but with the one it will be over quickly, seemingly forgotten in a few minutes; if the offender ceases to offend and wishes to be friendly again, the aggrieved party is placable and forgiving. In the other case there is never any "let up;" the injury, the insult, the wrong never ceases to rankle in their bosoms. They can not forgive once, let alone "seventy times seven." It may be said that in the latter case, that the person has strong aggressive and selfish organs, and weak countervailing moral organs. Not always so; my own personal observations have led me to notice persons possessing this unforgiving spirit, who were otherwise most estimable people, who had large Spirituality, Veneration, Conscientiousness, etc. They were good, kind, honest and religious people, and yet it seemed almost impossible for them to forgive an injury. Their implacability was passive, at least, if not aggressive. Now what combination of faculties led to this? It may be said that it was owing to their large Continuity, working along with large Destructiveness, Combativeness and the selfish organs. On the contrary, I have seen this spirit exhibited by persons whose lack of Continuity was notorious—who could never stick to one pursuit for any length of time, and whose Phrenological charts were marked with moderate Continuity. Inasmuch as in none of the writings of Fowler, Combe, and other Phrenological authorities have I seen this subject elucidated. I write for information, hoping some contributor to the JOURNAL will furnish more light.

M.

PERSONAL.

Miss Lelia J. Robinson, who practices in the courts of Suffolk Co., Mass., thinks the West offers better opportunities than the East to a woman lawyer, and that the farther West one goes, the more favorable the conditions become. Oregon and Washington Territory she thinks the best field

of all. Hear ye, Hear ye, all women who have aspirations for legal renown!

GLADSTONE AND SALISBURY AS WALKERS.—The difference between Gladstone and Lord Salisbury is as marked in their walk as in their mental character. Like Lord Beaconsfield, the latter can not walk, but he can saunter. Mr. Gladstone walks, and there is no mistake about it. He passes everybody as he goes down Regent st., and by exercise keeps himself strong. Lord Salisbury passes from the Foreign Office to the House of Lords, when he does not use his carriage, at the rate of about a mile an hour; and that is frequently all the exercise he has, for he does not always walk from Arlington st. It should be remembered that Gladstone is ten years or more older than the owner of Hatfield House.

JENNY LIND-GOLDSCHMIDT died from paralysis in London on Wednesday, Nov. 2, aged 67 years. The Lind furor both in Europe and America during the comparatively short time she sang in public was not surpassed by that attending any musical celebrity from Malibran to Gottschalk, and more has been written upon "the Swedish Nightingale" than any other prima donna of the century. She came to America in 1850 under contract with Mr. P. T. Barnum, and gave about a hundred concerts, everywhere meeting enthusiastic welcome. No public singer has ever been considered with so much respect by all classes as Mme. Lind-Goldschmidt. After her marriage in 1852 she continued to sing before audiences for pay but retired about 1865. Her contributions to charitable objects were always large.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

One may live a conqueror, a king, a magistrate, but he must die as a man.—*Daniel Webster.*

The innocence of the intention abates nothing of the mischief of the example.—*Robert Hall.*

Every spirit makes its house, and we can give a shrewd guess from the house to the inhabitant.

If 'tis perfection makes the perfect brain,
To some degree, all people are insane.
This being true, it is a deed divine
To learn to place the plus, or minus sign.

Truth lies in character. Christ did not
simply speak truth; He was truth; truth
through and through; for truth is a thing
not of words, but of life and being.

—Robertson.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"You girls want the earth," said a fond
father, when one of his daughters asked
him for \$6 for a new jacket. "No, papa,"
said the ingenious child of twenty, "not the
earth—only a new Jersey."

Wife (to husband, an eminent physician).
"What wonderful advances have been made
in medical science during the past few
years, my dear?" Eminent physician:
"Wonderful, wonderful." Wife: "So
many new names to old diseases!"

The chief of the Bureau of Engraving at
Washington is something of a joker. When
asked what would probably be the design of
the tax stamp for oleomargarine he replied
that a "stuffed goat" would be most appropri-
ate. That would best represent a "bogus
butter."

A bachelor sea captain was complaining
that he could not get a satisfactory chief
officer, when a young lady remarked that
she should like a situation as a first mate.
The captain took the hint and the young
lady.

Young Wife.—I wonder the birds don't
come here any more; I used to throw them
bits of cake I made, and—

Young Husband.—That accounts for it.

AN ANTICK TALE:

WITH A MORAL.

I know a man of gentle skille,
Who fromme a pigge his tayle
Did make a whistel att his wylle
Emit a shrilly waile.

And thus that brutish beeste—in life
Obscure and lowlie hee—
Attained by crewle butcher-knife
To notoriety:

Who, save for gentle skille of manne,
Wolde never have been knowne;
Had not the breath of artizan
The pigge his whistel blowne.

Some love the pigge — his chubby chekes,
His eeres and eke his feete
(But fals the sage Ægyptian spekes
If pigges were made to ete).

They visite oft his cosie nouk
With savorie potte and panne;
And Oh, that eche his neibor take
An equal thought of manne !

HENRY CLARK.

Anno Dom., 1887.



*In this department we give short reviews of such
NEW BOOKS as publishers see fit to send us. In these
reviews we seek to treat author and publisher satis-
factorily and justly, and also to furnish our readers
with such information as shall enable them to form
an opinion of the desirability of any particular vol-
ume for personal use. It is our wish to notice the
better class of books issuing from the press, and we
invite publishers to favor the Editor with recent
publications, especially those related in any way to
mental and physiological science. We can usually
supply any of those noticed.*

PUBLICATIONS RECEIVED.

MASTERS OF THE SITUATION; OR, SOME SECRETS
OF SUCCESS AND POWER. By William James
Tilley, B. D. 12mo., 346 pages. Chicago.
S. C. Griggs & Company.

So many books have been written in the
line of this one that the author might well
say in his preface, apologetically, "So much
has been written, we are told, that it is no
longer possible to appear original. Yet all
will agree that the manner of presenting old
truths is of the first importance." Mr. Til-
ley has his own style and has packed his
essays with gleanings from biography and
history in such wise that his points are em-
phasized while they are at the same time
rendered interestingly clear. His "Masters
of the Situation" are not so much original
gifts of intellect and disposition as they are
modes of using faculty and will, and there-
fore to a great degree might find some ex-
emplification in the life and work of every
man. For instance, Promptness, Individ-
uality, Application, The Single Eye, Habit,
Health, Enthusiasm, Manners, "Wait," Op-
portunity, Genius, are these "masters," and

he treats of them in separate chapters, indicating their relation to successful achievement. The young man who reads attentively in these pages obtains impressions of much less exciting order than those that come from his perusal of a Haggard novel, but they are impressions that are likely to linger in his moral nature, and may at sudden opportunity lighten up into an inspiration that will change the current of his life and open the way to happy results that he did not expect.

A SHORT-HAND. Legible as the plainest writing and requiring no teacher but the book; with a simplified system of Verbatim reporting, by Rev. W. E. Scovil, M. A.

This is the claim made on behalf of the Scovil system, and to the expert user it may be but a fair representation. Further than this the publishers allege that experience warrants the author in claiming that "his short-hand is simpler, more easily acquired, and more legible than any now in use." Of course the thousands who write the phonetic systems will not accept this, and think that the fact of Scovil's not being phonetic is sufficient to relegate it to a secondary place. One feature of this method that is decidedly in its favor is writing the vowels in with the consonants, an advantage of such importance in itself that the press is threatened with several new plans of short-hand in which the expression or outlines of words will be analagous to the common way of writing them. Mr. Scovil insists that the stenographer who uses his method can read his notes more easily than the phonographic short-hand writer, and gives some reasons for the opinion, two being that the vowel signs are joined to the consonants and that there is much less complication. Nothing but a somewhat extensive comparison in practice with other systems would settle this claim. We have no doubt, however, that the method is a good one, and that to some minds it comes more readily than the acquisition of the phonetic systems.

THE LIVES OF THE PRESIDENTS. — JAMES MADISON, JAMES MONROE, AND JOHN QUINCY ADAMS. By William O. Stoddard, 12 mo., pp. 331. Cloth, price \$1.25. New York, Frederick A. Stokes.

This writer of biographies gives the read-

ing world of America another volume, this time including a trio of famous men, the most famous coming last. The important events in the life of each are sketched with the bold, free hand peculiar to Mr. Stoddard, and while he does not dwell much on any one, he furnishes the reader with a sufficiently full account for one's general information. We notice a singular impartiality in measuring the space allotted to these three presidents of our nation, each occupying about the same number of pages. The young man whose leisure is restricted to a few evening hours can obtain from these volumes of the lives of the representatives of the Nation, if he follow them in the order of their production, a good knowledge of American history, and gradually accumulate a neat and inexpensive library of our great men.

THE FIRST COMMANDMENT. A sermon preached by Theo. Gestefeld in the interest of "Christian Science."

The sum of this, as stated in one of the concluding paragraphs, is — "obedience to the first commandment means life, health and happiness; death, disease and misery are the rewards the senses inflict when we follow their allurements away from the simple truth that love, and love alone, is the principle of life." This "first commandment," be it understood, is not that of the Decalogue, but that announced by Christ as one of the two great ordinances of human life, and expressed by Him in the well-known "Love the Lord thy God with all thy heart, with all thy soul," etc. There is more in this sort of "Christian Science," we think, than in that commonly preached by its advocates.

ONE HUNDRED CHOICE SELECTIONS for Readings and Recitations, No. 27. Published by P. Garrett & Co., of Philadelphia, Pa. Price in paper, 25 cts.

A carefully arranged collection of fresh poems and prose pieces representing English authors of prominence in the day's literature.

MOTHER GOOSE FOR TEMPERANCE NURSERIES, is a new adaptation of the old rhymes and jingles that delight the little folks, with the sort of pencil sketches, thirty-one in all,

that are suitable to the text. Price 25 cts. National Temperance Soc., New York.

ELEMENTARY PERSPECTIVE. Explained and Applied to Familiar Objects. For the use of Schools and Beginners in the Art of Drawing. By M. J. Keller, School of Design, University of Cincinnati. 8 vo., cloth, pp. 47. Cincinnati. R. Clark & Co.

A neatly printed and well arranged manual, this. The lessons are given first in the form of a catechism, in which the principles of perspective drawing are explained. Then follow several chapters in which examples are given of their application in practice. The book has been found of important service as a textbook in the institution where Miss Keller is a teacher, and is commended for its excellence to teachers of elementary drawing.

CURRENT EXCHANGES.

The Dental Cosmos, November, New York.

New York Observer. Presbyterian. Weekly.

American Inventor, October, Cincinnati, O.

Building, an Architectural weekly. New York.

St. Louis Photographer, November, Mrs. Fitzgibbon-Clark, St. Louis.

Journal of Reconstructives, October, New York. To be commended for its independent tone.

Archives of Dentistry, October, St. Louis. A condensed monthly record of dental news, inventions, and progress.

World Travel Gazette, July and August. World Travel Company, New York. Contains valuable hints on touring in this and other countries.

The Hahnemannian, Monthly, October. Philadelphia. A long established medium for the dissemination of the medical theory to which it owes its name.

The American Magazine certainly improves and is consistent in presenting American subjects for the reader's consideration. The list for November is long and richly illustrated. New York.

Lippincott's Magazine, the December number, contains *From the Ranks*, a complete novel. *My First Appearance*. With Gauge & Swallow. *Earthworms and Society*. Jenny Lind-Goldschmidt. *The Drum Major*. Dinah Maria Mulock-Craik.

The Eclectic, November, contains choice gleanings from such foreign sources as the *Fortnightly Review*, *Macmillan's*, *Blackwood's*, the *Gentlemen's*, *Cornhill Magazine*, *Temple Bar*, *Spectator*, *Academy*, *National Review*, and is more than usually interesting.

Herald of Health for November. The policy of the editor in discussing a variety of sanitary topics in brief, pithy items is to be commended. Herald of Health Company, New York.

The Popular Science Monthly, November, has in its always full list of topics, these which are likely to invite an attentive reading. Agassiz and Evolution, Science and Revelation, About the Wedding Ring, A Kitchen College, The Unhealthfulness of Basements, Sketch of Chester S. Lyman. Popular Miscellany has a good variety of brief items. D. Appleton & Co., New York.

Harper's Magazine, November, is charmingly illustrated; the titles, especially *A Santa Barbara Holiday*, *Chantilly*, *The Chateau* and the *Collections*, *The other End of The Hemisphere*, and *Here and There in the South* covering the best work of the artists. The literary features of the number are more varied than usual. Taken altogether a very satisfactory issue. Harper & Brothers, New York.

The School, vol. 1, No. 1, is received from Springfield, Mass. Especially designed for officers and teachers. This first number is neat, and as unostentatious in all departments as its first editorial. If it is to be the medium for original contributions from live teachers, we wish it success. If it is to be a mere clipping machine its race will be short, for there have been many launchings of that sort followed by wreck.

The Quarterly Journal of Inebriety, Dr. T. D. Crothers, Editor. A careful analysis of the pathological effects of inebriety, by Dr. E. C. Mann, is the first article of this number, and its terms are strongly supplemented by the articles that follow. Brief notes on tea drinking and tobacco amblyopia point to the nerve degeneration caused by such common habits. This publication is worthy extensive reading as a scientific instrumentality of social and political reform. Hartford, Conn.

The Century, November, opens patriotically with *The Home and Haunts of Washington*, followed by *Mount Vernon* as it is. Other distinctively American topics are *Saint Gaudens*, *Lincoln*, *The President-Elect at Springfield*,—in the *Abraham Lincoln* series, *Sugar making in Louisiana*, *Grant's Last Campaign*. In the editorial and other departments, *Sanitary Legislation in American Cities*, *The Incompetence of Legislative Bodies*. The *Powel Portraits of Washington* will claim a reading. Composite portraits shows much photographic industry on the part of some observers, with not very satisfactory results for the theorists who have zealously supported the idea. New York.



